Vol. II

TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1935

No. 767

DUPLATE CORPORATION AND PITTSBURGH PLATE GLASS COMPANY, PETITIONERS,

vs.

TRIPLEX SAFETY GLASS COMPANY OF NORTH AMERICA

No. 768

DUPLATE CORPORATION AND PITTSBURGH PLATE GLASS COMPANY, PETITIONERS,

vs.

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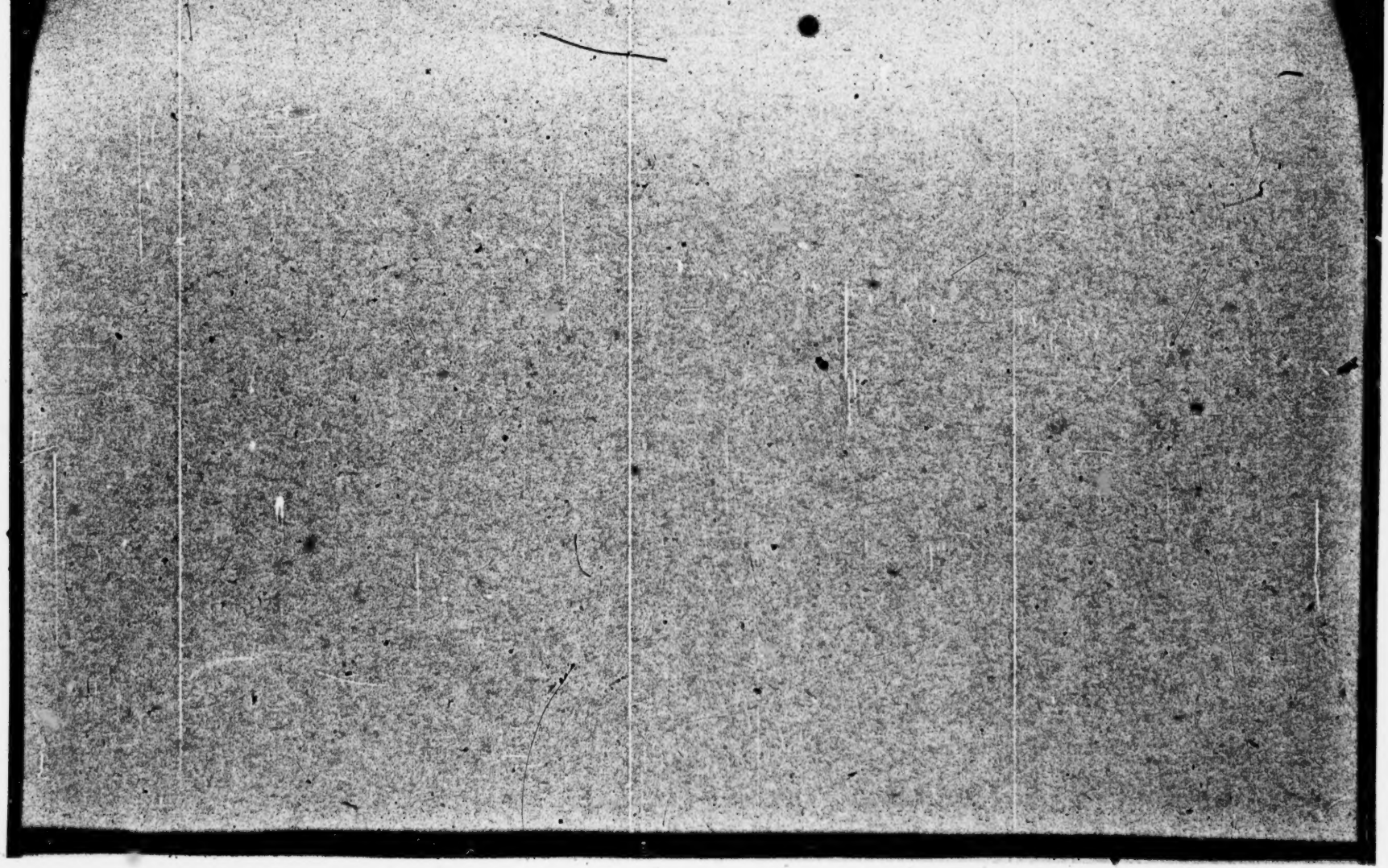
ON WRITS OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT

PETITION FOR CERTIORARI FILED FEBRUARY 21, 1936.

CERTIORARI GRANTED MARCH 30, 1936.

VOL. II



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JUDD & DETWEILER (INC.), PRINTERS, WASHINGTON, D. C., APRIL 3, 1936.

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[fol. 871] Pittsburgh, Pennsylvania,
Monday, November 28, 1932.

Met pursuant to adjournment.

Present: G. Dixon Shrum, Esq., Master; Ambrose L. O'Shea, Esq., of counsel for the plaintiff; Marshall A. Christy, Esq., William Watson Smith, Esq., L. E. Hickman, Esq., counsel for the defendants.

H. B. Higgins, a witness recalled on behalf of the defendants, having been previously duly sworn, testified as follows:

Direct examination.

By Mr. Smith:

Q. Mr. Higgins, do your duties make it necessary for you to familiarize yourself with the operations of the various warehouses in selling the product of the Pittsburgh Plate Glass Company?

A. Yes.

Q. And also with the operations of the various warehouses in selling Duplate?

A. Yes.

Q. And do you have warehouses scattered over a large part of the country?

A. The entire section east of the Rocky Mountains.

Q. Are you able to state from your knowledge of the operations of the warehouses whether or not the warehouses made any profit in selling Duplate during the accounting period?

A. Yes.

Q. Did they or did they not?

[fol. 872] A. They did not.

Q. How did it happen that the Pittsburgh Plate Glass Company became interested in organizing the Duplate Corporation and starting into this business of selling laminated glass?

A. You want the circumstances leading up to it, Mr. Smith?

Q. Yes.

A. A Mr. Edwards, I think, from the du Pont Company came out to Pittsburgh, probably in the early part of 1927. He had heard of the research work that we had been doing on laminated glass, and came to talk to us. He called on me, and he pointed out that the du Pont Company had a very large capacity for the production of pyralin, which had been mainly employed in supplying sheeting for open cars—for the rear windows of an open car and the sides to the open cars.

Q. You mean a cape top car?

A. I mean a regular touring car with the curtains which are glazed, as you know, with pyralin. That that capacity had been idle since the closed car developed, and that consequently the du Pont Company had been doing a great deal of work to see what could be done to develop a market for that idle capacity. He explained that they had improved the pyralin substantially as result of their research work; that they felt it was a more satisfactory product than it had ever been for laminated glass, and that they were considering going into the laminated glass business, and he wanted to know what our research work had developed and I told him. Subsequent to that a Mr. Brokaw, who was their plant manager at Arlington, came out and talked to us.

Q. Whose plant manager?

A. The du Pont Viscoloid Company's plant manager at Arlington. We had several conferences with other officials of the du Pont Viscoloid Company, and finally Mr. F. B. [fol. 873] Davis, who was president of the company, came out to talk to us. He saw Captain Brown and Mr. Wherrett, I think, and myself. He suggested that the two companies should join in their efforts to produce laminated glass. He explained what the others had of their position with respect to idle capacity; said it was a matter of great interest to them to see this product developed, and that he thought it would be a mistake for the two of us to go about it independently; that our two companies had made developments that complemented one another, and he hoped that we would join them in the formation of a company to produce laminated glass. He made it very plain that if we were not willing to do that, that his company would go into the business themselves; that they felt it was a matter of sufficient importance to them to justify their entry into the business.

Q. Prior to this time you said that your company had been making experiments with laminated glass?

A. Yes.

Q. Did you experience any difficulties in making a satisfactory product experimentally?

A. Yes, we did, Mr. Smith. We had never up to that time been able to produce a product that we felt was satisfactory, and we had not made sufficient progress with our own work to convince us that we could make a product that was satisfactory, and really I suppose the determining influence there was the statements of the du Pont Company's representatives as to the advancement in the art of making pyralin and also the discovery which they had made some time prior to that of the method of protecting pyralin against discoloration. At that time the real difficulty with laminated glass we all thought was discoloration. Subsequently edge separation proved to be a more difficult problem, but [fol. 874] as we knew the business at that time the real objectionable feature of laminated glass was its tendency to discolor in sunlight.

Q. Was that caused by the glass or by the pyralin?

A. Both, Mr. Smith. The pyralin, as it had been made before, discolored very much more rapidly than it does now. It is affected by the sun because we discovered that what breaks down the fabric of the pyralin itself is the ultraviolet rays of the sun. Daylight, as we see it, does not affect the pyralin. It is the invisible light that destroys it, and the manufacture of glass that will screen out the invisible light and protect the pyralin, gives a light that will not discolor.

Q. Do you make that kind of glass?

A. Yes.

Q. That is, in your ordinary commercial production?

A. Yes.

Q. You said, I believe, you supposed the determining factor that induced you to go into this business was the improvements in the pyralin. That was one of the subjects these people, Messrs. Edwards, Brokaw and Davis, discussed with you and the other representatives of your company?

A. Yes.

Q. At that time state whether or not there had been any market established for laminated glass.

A. No particular market except with individuals who could afford to pay half the cost of a Ford car to have it glazed with laminated glass.

Q. Was that a comparatively small market?

A. Very small, yes. You won't find many people who are willing to pay $200 to put glass in an automobile.

(Magazine marked Defendants' Exhibit "KK.")

Q. Mr. Higgins, I show you Defendants' Exhibit "KK," being a magazine entitled "1932 Statistical Issue, Automo- [fol. 875] tive Industries." Will you state whether or not that magazine is a journal of recognized standing in the glass trade and the automobile industry?

A. It is.

Q. How long have you been familiar with that magazine?

A. I think ever since I have been in Pittsburgh, Mr. Smith—fifteen years or more perhaps.

Q. And have you had occasion at times to consult that magazine?

A. Always have used it and subscribed to it.

Q. Will you state whether or not in the trade the information in that magazine is considered as accurate and reliable?

A. It is.

Q. And is it considered accurate and reliable enough to be the basis of business transactions in the trade

A. Yes, indeed.

Q. And would you so consider it, and be willing to make a business transaction on the faith of the accuracy of that exhibit?

A. Yes.

Mr. Smith: If the Master please, we offer in evidence the table "New-Car Registrations" from page 293 of this exhibit, and ask that the same be copied into the record, the offer being confined to the years 1928, 1929 and 1930.

Mr. O'Shea: Objected to on the ground it is incompetent, irrelevant and immaterial; on the further ground that the exhibit offered has not been properly proved.

The Master: We will accept the exhibit subject to Mr. O'Shea's objection.

[fol. 876] New-Car Registrations (Approx.)

Make	1928	1929	1930
Auburn	11,550	19,300	13,370
Auburn	11,550	18,500	11,460
Cord	.....	800	1,910
Austin	.....	.....	4,430
Chrysler Motors	346,780	356,900	228,390
Chrysler	152,110	87,500	61,940
DeSoto	15,050	61,700	35,870
Dodge	154,220	119,800	65,190
Plymouth	25,400	87,900	65,390
DeVaux	.....	.....	.....
Durant	73,870	49,400	21,800
Ford Motor Co.	505,130	1,362,400	1,077,460
Ford	498,880	1,356,000	1,073,030
Lincoln	6,250	6,400	4,430
Franklin	7,690	11,100	7,610
Gardner	3,290	2,100	.....
General Motors	1,343,470	1,315,700	920,810
Buick	203,160	162,300	112,200
Cadillac	18,830	15,500	12,280
Chevrolet	796,870	807,300	629,400
La Salle	19,490	21,000	11,450
Marquette	.....	16,000	12,540
Oakland	38,400	33,000	22,020
Oldsmobile	76,290	92,600	48,510
Pontiac	190,430	163,800	69,550
Viking	.....	4,200	2,860
Graham-Paige	60,570	62,600	30,650
Hudson Motors	233,740	262,900	95,390
Essex	183,680	198,000	64,410
Hudson	50,060	64,900	30,980
Hupmobile	57,490	45,900	24,720
Jordan	4,400	2,300	.....
Marmon	15,290	22,300	12,580
Nash	119,200	108,800	51,950
Packard	44,460	46,200	28,800
Peerless	8,020	8,600	4,090
[fol. 877]			
Reo	22,130	17,900	11,640
Studebaker Interests	116,920	94,400	64,400
Esrkine	23,480	8,000	.....

Make	1928	1929	1930
Pierce-Arrow	5,940	8,700	6,910
Studebaker	87,500	77,700	57,490
Stutz	2,510	3,100	830
Willys-Overland	239,450	206,700	66,890
Whippet	197,910	168,000	19,320
Willys			33,250
Willys-Knight	41,540	38,700	14,320
All others	33,470	16,700	4,780
Total	3,249,430	4,015,300	2,670,590

Prior to 1931, 3.5 per cent has been added to new car registrations to obtain the Automotive Industries estimate of sales, because error between factory deliveries and new car registrations to this amount has been found by experience. A change in experience shows the factor should be 0.6 per cent for 1931 and 1.7 per cent for 1930; these percentages, respectively, have been added.

Mr. Smith: We offer in evidence the short schedule on page 296 of this magazine, Exhibit "KK," being the schedule entitled "Average Retail Price of Passenger Cars," and the portion we offer is for the years 1927, 1928, 1929 and 1930, and we would like to have that copied into the record.

Mr. O'Shea: Same objection.

The Master: Accepted subject to objection.

Average Retail Price of Passenger Cars

1927	$981
1928	899
1929	830
1930	788

[fol. 878] Mr. Smith: We also offer in evidence for the years 1927 to 1930, inclusive, the schedule showing, "Average Retail Price of Trucks," found on page 294 of that exhibit, and ask to have that copied into the record.

Mr. O'Shea: Same objection.

The Master: Accepted subject to objection.

Average Retail Price of Trucks

1927	$1,168
1928	1,041
1929	961
1930	904

Mr. Smith: We offer in evidence for the years 1927, 1928, 1929 and 1930 the table entitled, "Per cent of Total Car Sales by Leading Groups," found on page 295 of this magazine, and we ask to have this table copied into the record.

Mr. O'Shea: To this other document, whatever it may be, exhibit or testimony, I have the same objections, and take an exception to the Master's ruling.

Per Cent of Total Car Sales by Leading Groups

	1927	1928	1929	1930
Ford	15.25	15.54	33.92	40.70
General Motors	42.53	41.34	32.79	34.15
Chrysler	10.60	10.65	8.87	8.58
Hudson-Essex	8.60	7.20	6.52	3.55
Willys-Overland	5.32	7.37	5.14	2.51
Studebaker	3.83	3.59	2.35	2.41
Nash	4.19	3.67	2.72	1.92
Graham	.71	1.86	1.57	1.16
Packard	1.19	1.37	1.15	1.08
Hupmobile	1.29	1.77	1.14	.93
Durant	2.17	2.29	1.23	.82
All others	4.32	3.35	2.60	2.19
Total	100.00	100.00	100.00	100.00

[fol. 879] Q. Mr. Higgins, when you were on the stand at the last meeting before the Master you were asked some questions about this special cutting loss. As I understand it, the exhibit offered in evidence when Mr. McHenry was on the stand reflected the special loss in these odd sizes of glass that were actually sold. Do you know whether or not in the year 1930 the Plate Glass Company had on hand any amount of glass of odd sizes which was produced by the fact that the automobile orders were so limited in point of size—that there was so little variation in those orders in point of size?

A. Yes, we had a very large accumulation of residue, as we sometimes call it, that resulted from cutting automobile sizes.

Q. Have you the figures showing the amount of that in 1930?

A. Yes.

Q. What are they—in feet?

A. At the end of 1930—this was December 30th—when the inventory of one-eighth inch glass at Creighton was taken, we crossed off as having no value 1,191,730 feet. Now that figure represents my judgment of the loss that we would sustain in the future on our stock of one-eighth glass at Creighton.

Mr. O'Shea: Objected to on the ground it calls for a conclusion, on the ground it is incompetent, irrelevant and immaterial, and as constituting proof of some loss that occurred after the accounting period.

The Master: We will admit it subject to the objection.

(Exception noted to plaintiff.)

Q. Was this glass small sizes or odd sizes, or both?

A. Both.

[fol. 880] Q. And what, in your judgment, occasioned that large accumulation of those small and odd sizes?

A. Cutting of automobile sizes.

Q. And you explained the reason of that?

A. I explained that in my last testimony.

Q. Now, did your company take any inventory at any time except on the last day of December of the year?

A. No.

Q. Therefore, there would be no inventory taken near the close of the accounting period, which would be May 31, 1930?

A. No.

Q. Were the operations of your company during the year 1930 in the production of glass more or less uniform as to quantities? I mean by that did you make it all in the first half of the year or all in the second half of the year, or how was it?

A. I don't believe I could answer that, Mr. Smith. I take it you want to know relatively what part of the glass might have been made in the first five months and what part in the second?

Q. I am wondering if there was any way to ascertain that.

A. Oh, yes, it could be ascertained, but I don't happen to know. The figures could be obtained from the accounting department.

Q. I understood you to say no figures could be obtained from the accounting department to show this inventory.

A. No; but you wanted sales, did you not?

Cross-examination.

By Mr. O'Shea:

Q. Mr. Higgins, you spoke of a Mr. Edwards of the du Pont Company who came to you in 1927 for the avowed purpose, apparently, from your testimony, of inducing you [fol. 881] to enter into this laminated glass business. Was that the Mr. Neilson Edwards who has testified in this case?

A. Oh, no. I am not altogether sure of the name, Mr. O'Shea, but he was in the employ of the research department of the du Pont Viscoloid Company.

Q. In any event, it was not the Mr. Neilson Edwards who was connected with the Triplex Safety Glass Company?

A. No, indeed.

Q. This alleged cutting loss of 1,191,730 square feet. Do you know what your company did with it?

A. Well, that wasn't a cutting loss, Mr. O'Shea. That represented glass which, in my opinion, would have to be depreciated in value to the point that it possessed little book value. It was an unrealized loss—let me put it that way. We had the glass in stock, but it was in sizes that were not merchantable. It was dead inventory; subject to heavy future shrinkage.

Q. I say do you know what you did with it.

A. I know what we did with part of it.

Q. What did you do?

A. A lot was sold for strips; a lot is still up there; a lot was cut down. Probably anywhere from 33⅓ to 40 per cent. was loss—as additional cutting loss.

Q. This percentage that you are giving now is an estimate on your part I assume?

A. Yes, that is correct, but I was sufficiently confident of it to mark off the books entirely the total value of this number of feet.

Q. You mean you gave somebody instructions in your accounting department to mark it off?

A. Yes, exactly.

Q. Have you got it marked off?

A. Yes.

Q. What did you do when you sold it?

[fol. 882] A. It went into our sales, of course, subsequently.

Q. Went back in again?

A. Yes, if it was sold, and as it was sold.

Q. In 1926 and 1927 did you have any of these small sizes of one-fourth inch plate glass?

A. Yes.

Q. Would your books show, Mr. Higgins, if you know it, whether a particular warehouse of yours had lost any money in the years 1928, 1929 and the first five months of 1930?

A. Certainly.

Q. Are you able to state from your recollection how much, let us say, the Chicago warehouse lost in the year 1928?

A. No.

Q. You would have to go to the books for that?

A. Yes.

Q. And that is true of all other warehouses?

A. That is correct.

Q. Are you able to state from your knowledge of the business whether the warehouses sold their products at a higher price than that which the home office billed the warehouse?

A. Yes, that is the object of having warehouses.

Q. You mean by that that is their practice, that they do sell for higher prices?

A. That is the practice. We operate them for a profit.

Q. And it is your policy, or your attempt to maintain the ideal of having the warehouses make a profit and be self-sustaining?

A. Correct.

Q. I don't know whether this is of much importance except that I understood you to say in your direct testimony

that it has always been your custom to make discolored glass in your ordinary production. Am I correct?

[fol. 883] A. To make what?

Q. Discolored glass.

Mr. Smith: I think there was no such testimony.

Q. I was wrong about that, was I?

A. I don't know what that could refer to.

C. L. McHenry, recalled on behalf of the defendants, having been previously duly sworn, testified as follows:

Direct examination.

By Mr. Christy:

Q. When you were last on the stand, Mr. McHenry, you were asked by Mr. Smith (see page 1213 of the manuscript record): "Q. Mr. McHenry, you were asked a question with respect to Exhibit "Z", whether that exhibit showed prices charged by the Duplate Corporation. And you gave your answer. Does that exhibit show the prices that were actually paid by the various automobile manufacturers?" Your answer to that question was as follows: "A. In this exhibit where it is marked—like sales to Moon Motor Car Company, or Bender Body Company, the sale is billed to the Pittsburgh Plate Glass Company at the amounts shown in this exhibit, and the amount billed to the Moon Motor Car Company, or any other company, would be the same as shown in this exhibit, plus 3 or 5 per cent., whichever the case might be." Is that answer correct?

A. It is not. The amount as shown on that exhibit would be billed, or was billed direct to the customers as shown on the exhibit.

Q. Then, these amounts shown on the sheets of Exhibit "Z" under the columns "Gross Sales" and "Net Sales" in dollars and cents, do in fact all of them include these [fol. 884] commissions of three or five per cent., do they not?

A. They do.

Q. And the commission of three or five per cent. is in-

cluded on the other side of the account in the column "Cost of Sales." Is that correct?

A. It is.

Q. Now, I refer you to another statement of your testimony (commencing at the bottom of page 1205 of the transcript): "Most of the orders from the warehouses are from the automobile manufacturers, and the only difference in sales price between the Pittsburgh Plate Glass Company and the warehouse and the Duplate Corporation, is 3 per cent. commission, or 5 per cent.—whichever period it happened to be in." Is that statement to be understood with the explanation you have given just above?

A. What I was trying to convey is that the sales price as shown in Exhibit "Z" to all customers is the same as listed. The only difference between the sales from Duplate to the Pittsburgh Plate Glass Company—the gross sales isn't changed but an entry is made for the commission.

Q. And that, as you say—that commission—is included in the other side of the account, Exhibit "Z," in the column "Cost of Sales"?

A. It is.

By Mr. Smith:

Q. Mr. McHenry, will you turn to your Exhibit "X"? In your testimony—I read from the record, page 1097—you testified as follows at the last hearing: "Q. And at what rates were many of these replacements made, Mr. McHenry? A. Some of them, the rate for the glass was as high as $4 a foot, because that was what the dealer had paid for it. Q. That is, the dealer had to pay $4 a square foot for the [fol. 885] piece of Duplate which he used to replace the defective one; is that what you mean? A. Yes, sir." What were the replacements that are referred to in that schedule where it appears that the cost to the dealer had been as high as $4 a square foot? Will you give us an illustration of one or two of them?

A. These high prices are the exception rather than the rule. I had in mind under January, 1931, page 2, Exhibit "X," you will see there a sale to George Feathers Company, 75 feet 6 inches, $500.77. Let me explain. This is not a sale to them. This is a charge from George Feathers & Company to the Duplate Corporation for replacing 75

feet 6 inches, $500.77. Now the reason for this high price, which in this instance is $6.63——

Q. $6.63 a square foot, you mean?

A. Yes, $6.63 a square foot—is that George Feathers & Company are located in Melbourne, Australia. The Duplate Corporation sold George Feathers & Company the glass which they used to make this replacement on Bill No. 871; 531 feet 8 inches at $2.50 a square foot; 194 feet 5 inches at $2.25 a foot, and in invoice No. 872, May, 1929, 262 feet 6 inches at $2.25 a square foot, but by the time Feathers & Company paid their duty, their exchange, and the charge for having the glass installed their charge back to us was, as indicated in Exhibit "X," $6.63 a foot.

Q. The charge for having the glass installed. You mean by that the cost of installation? Is that what you mean?

A. The installation of the glass that they used.

Q. And also they would have transportation that you mentioned?

A. Transportation.

Q. So that brought the price that the glass was actually sold at up to a replacement of six dollars a square foot?

[fol. 886] A. Yes.

Q. Will you give us another illustration of those high prices?

A. In June, 1931, the second page, is a replacement charge from Seaman Body Corporation, 2 feet 11 inches, $15. This replacement was made by Begg Motor Company in Vancouver, British Columbia, in which instance the duty, transportation, and so on runs the cost up to practically $5 a foot.

Q. Can you give us another illustration?

A. In December, 1930, the second page, showing a charge from the Duplate Company of Canada, 31 feet 6 inches, $143.80. Also another item on the same page from Duplate of Canada, 12 feet 8 inches at $4 a square foot. These replacements were made in the Dominion of Canada, and the cost of glass to them would include duty as well as on the other export shipments.

Q. By taking the number of feetage shown in the column headed "Feetage" in this exhibit and dividing into the glass cost, you can get the cost per square foot of glass, can you?

A. Yes, you can, with the exception of some items that they did not separate their installation charges, and these

columns would appear blank and all the charge would be under glass cost.

Q. I notice some of the lines in the column headed "Installation" are left blank.

A. In those instances the charges for installation are probably carried in the glass column because they were not segregated.

Q. I understand that it appears from the evidence in this case that the Ford windshields that were made by the Triplex Company were of size 14 inches by 44 inches. Is that your understanding?

Mr. O'Shea: Objected to on the grounds it is incompompetent, irrelevant and immaterial. There is no basis [fol. 887] laid for this witness's knowledge as to the facts.

Mr. Smith: I think that is in the record.

The Master: We will hear the answer subject to the objection.

A. It is my understanding, and our company made windshields of the same size for the Ford Company.

Q. Will you state whether or not 14 x 44 inches is an exact bracket size?

A. It is.

Q. Would that affect the amount of cutting loss?

A. It would. We filed in our exhibits of cutting loss a diagram of a Ford windshield showing no loss in cutting.

Q. Is the reason for that that it is an exact bracket size? Is that the reason?

A. That is the reason.

Q. Mr. McHenry, do you wish to make any explanation or correction of your last answer as to the diagram?

A. I prepared a diagram in pencil showing the size 14 x 14, showing no cutting loss. If this is not in the exhibits filed, it is a correct statement of loss.

Q. Well, whether or not there is an exhibit here, it is a perfectly obvious point, is it not, that the bracket size affects the cutting loss?

A. Yes, sir.

Q. Mr. McHenry, did you take occasion to add up or have anybody add up the amount of sales which you have indicated as made to warehouses on this Exhibit "Z"?

A. I did, and I find that our sales made to warehouses were five per cent. of the total sales.

Q. That is, in Exhibit "Z" ninety-five per cent. are sales made to customers, like Dodge Brothers or Fisher Body Corporation and other customers indicated, and only five [fol. 888] per cent. of the whole are shown on this exhibit as sales to Pittsburgh Plate Glass Company's warehouses?

A. That is it.

Cross-examination.

By Mr. O'Shea:

Q. Mr. McHenry, in figuring that five per cent., let me have your figures, will you?

(Recess taken until 1:45 P. M.)

Afternoon Session

C. L. McHenry, resumes the stand.

Cross-examination (continued).

By Mr. O'Shea:

Q. (Previous question read.)

A. The total sales during the accounting period are 4.141,207 feet. Of this, 218,954 feet were shipped direct to warehouses, making the percentage 5.3.

Q. The 4,141,207 includes the shipments to Fisher, does it not?

A. It does.

Q. And those invoices to Fisher were neither invoiced through the warehouses nor were they shipped by the warehouses to Fisher, were they?

A. Shipments were made direct from Duplate to Fisher Body Company.

Q. And the invoices—where did they come from?

A. It is my impression that this billing was made direct from general office.

Q. Now, do you know how much the total sales to Fisher were?

A. The total net sales to Fisher and Fleetwood during the accounting period was 1,221,564 square feet.

[fol. 889] Q. What were the gross?

A. I do not have the gross here.

By Mr. Smith:

Q. Does that include Cadillac as well as Fisher and Fleetwood, or only Fisher and Fleetwood?

A. It is listed here as Fisher and Fleetwood.

By Mr. O'Shea:

Q. Did you have any other customers that were billed direct by the general office?

A. I could not answer that without checking up the records.

Q. Well, haven't you got it checked up in order to get the 4,141,207?

A. Yes, I have that.

Q. Have you got a record there showing what was invoiced from Pittsburgh Plate to its warehouses—the total? I am speaking now of the invoices to the warehouses and the shipments direct to the customers.

A. No, I have not.

Q. Well, in any event, your percentage of five per cent. would substantially increase if you took the proportion between the total sales, including those which were invoiced to the warehouses but shipped direct to customers, and those where the shipment was from the Pittsburgh Plate Glass Company to the warehouse, would it not?

A. Naturally it would be increased.

Q. Now, then, when you arrived at your proportion of .037 per cent., or rather 3.7 per cent., as testified by you on page 1204 of the record, you did not use there the orders that were billed and shipped direct from Pittsburgh Plate Glass Company to the customers?

A. This percentage of 3.7 that you refer to is the proportion of Duplate sold to plate glass and Duplate sold by the warehouses.

[fol. 890] Q. And in arriving at that proportion you used the figure $888,987.30, did you not?

A. I did.

Q. Now, in that amount you didn't use the amounts billed to Fisher and Fleetwood direct, did you?

A. Not if they were billed direct from general office, no.

Q. Well, weren't all the Fisher and Fleetwood billed direct from general office?

A. I think they were.

Q. Mr. McHenry, did your warehouses have any set charge per foot of glass where they installed glass?

A. Where they installed glass in cars for replacement you refer to?

Q. I don't know what they installed it for. At any time, whenever they installed glass, did they have any set price per foot for installation, whether it was for replacement or original installation or what not I do not know?

A. I do not know.

Q. Well, who would know that?

A. Probably Mr. Higgins.

Q. Wouldn't your records in the home office show whether they had any set price per foot?

A. They would not, as each warehouse was operated under a different manager, and the setting of glass—the price of installation—would be determined as to the difficulties they would encounter while on the job.

Q. Installation is purely a labor job, is it not?

A. It is, but on selling a job for glazing for building, for instance, an estimate is made by the estimating department in the warehouse and they furnish a bid including the glass and the glazing. Now, just what price they use in that glazing I do not know. It depends a great deal on the location of the warehouse, whether the glazers' union [fol. 891] would affect the glazing job or not.

Q. Well, now, you are talking—when you speak of glazing are you talking about putting glass into a building, or does that include putting Duplate glass into a vehicle?

A. The same would hold good on a replacement or glazing an automobile.

Q. Then the term you use in a generic sense for buildings, vehicles or otherwise?

A. Yes, sir.

Q. And, as I understand it, whenever anyone comes in for putting a piece of glass in their automobile the warehouse gives them an estimate of how much that will cost. Is that it?

A. That is my idea of it.

Q. They don't tell them how much it will cost, the same as selling a hat or a pair of shoes?

A. They would give him a price on the glass put in his car.

Q. Plus the cost for installing. Is that it?

A. The installing cost would be in their price of the glass and installation. For instance, I got a price from the Pittsburgh warehouse for glazing a certain car for a friend of mine. They gave me a price—say $75—which included everything. The car was delivered to them and went away with the laminated glass installed.

Q. What you mean is they didn't separate the price for the glass and the price for the installation?

A. No, they did not.

Q. Well, don't they sometimes do that?

A. I do not know.

Q. Take your Exhibit "X," for example; turn over there to the month of November, 1930, and take the first item, a credit to the Buffalo warehouse for twenty-one feet and eight inches, giving the price of the glass for [fol. 892] that to be $38.27, the freight to be fifty-five cents, the edgework $3.89 and the installation $10.50, making a total of $53.21. Wouldn't that entry seem to indicate that the credit was divided between the price of the glass and the other items, including the item of installation?

A. That is true, and that replacement may not have been done by the Buffalo warehouse. It may have been a jobber who bought his glass from the Buffalo warehouse, and when he made the installation, in order for him to get credit, it was necessary for him to itemize his bill so that it could be passed on before credit was approved.

Q. You say it may not. I assume by the use of the word "may" that it may or may not?

A. That is true.

Q. The warehouses are all equipped to install, are they not?

A. They are.

Q. They have labor there to install the glass?

A. They have.

Q. Wouldn't you say this would indicate possibly, at least, that the warehouse installed a piece of glass and charged $10.50 for it?

A. It is possible.

Q. Now, was there a profit to the warehouse in that $10.50?

A. Well, that I could not determine until I would have their cost of that installation. It may be a loss, as it was in many instances that I know of?

Q. Well, take a particular instance where I bring my car in to have a windshield installed and they charge me for it—for installing it, as I understand it. Now, wasn't it their endeavor to get a profit on that labor of installing that windshield?

A. It is, but if they break a piece of Duplate in making up your windshield, that would make them show a loss rather than a profit.

[fol. 893] Q. Now, did you give the plaintiff in this case credit in this account for any installation at all that was made by the warehouses?

A. I don't just understand that question.

Q. Well. we have an account filed here by you that states that in a given instance a certain amount of glass was sold to the Buffalo warehouse, and, as I understand the way that account is made up, you have given credit to the plaintiff in this accounting for the value of that glass as it was billed from the Pittsburgh Plate Glass Company to the Buffalo warehouse, and no credit was given there for any possible installations that the Buffalo warehouse may have performed on that glass. Is that correct?

A. That is correct. We have not taken any profits beyond the sale of glass to the warehouse or to the automobile dealer.

Q. Now, similarly, these boxing charges here. No credit has been given to the plaintiff in this case for any of the boxing charges in the original account. Isn't that so?

A. That is true.

Q. Although, as a matter of fact, the Duplate Company did all of the boxing but collected nothing for the labor or material in the boxing?

A. That is true.

Q. Now, what is this Duplate Company of Canada which appears intermittently on your Exhibit "X"?

A. That is a concern to which we sell glass, the same as any outsider. As to its organization, I know nothing about it.

Q. Do you know whether it is a subsidiary of the Pittsburgh Plate Glass Company?

A. It is not to my knowledge.

Q. Do you know whether it was a subsidiary of the entity known as the Duplate Corporation—that is, the American Company?

[fol. 894] A. It is not to my knowledge.

Q. Do you mean you know it is not when you say "to my knowledge"?

A. I do not know that it is. I have never seen any entries that would indicate we had any interest in it.

Q. Do you know how the glass was sold to that company—that is, sold by the Pittsburgh Plate Glass Company to the Duplate Company of Canada?

A. The same as to any other outsider.

Q. That is, sold direct from the Pittsburgh Plate Glass Company to Duplate of Canada as a jobber?

A. Yes, sir.

Q. Now, on your first page here which, as I understand it, encompasses the months of June, July, August and September of 1930, I see two items here with the words "Not shown," entered under the heading "Feetage," after the name "Duplate of Canada." Just what do you mean by that term "Not shown"?

A. The feetage was not known and the bill was not itemized.

Q. Wherever that phrase "Not shown" is specified then the bill was itemized? Is that correct?

A. In every other instance it was itemized.

Q. (Question read.)

A. Where the words "Not shown" are inserted the bill was not itemized, and in other instances where the total charge appears under the glass column the installation charge, edge work and freight was not segregated.

Q. Well, in such instances where the installation charge, edge work and freight was not itemized how do you know there was a charge for installation, freight and edge work?

A. The only way we could determine this would be to go through all the correspondence that was received by Mr. Judson who approved these bills. Before he would approve any bill for credit he would insist on itemization.

[fol. 895] Q. Well, you made up this exhibit, didn't you—Exhibit "X"?

A. I did.

Q. What did you make it up from?

A. From the credits issued to the warehouses and customers in these different places.

Q. And in particular instances you had a credit before you which simply showed that there was a credit given to a customer for so much feetage at so much. Now, how could you tell from that credit charge whether it included some installation, some freight or some edge work?

A. If it was not shown on the credit, the only way we could determine would be to go back to the correspondence, which in preparing this statement I did not think was necessary.

Q. But I say you could not tell from that credit charge whether there was installation included in it, freight included in it, or edge work included in it?

Mr. Smith: That was not what he said. He said you could not do it unless it was itemized.

Mr. O'Shea: That is what I am talking about.

Q. Such credit memorandum as were not itemized and which you had before you in making up those specific items in Exhibit "X." Where it was not itemized, showing an installation, a freight and edge work charge, then you could not tell in making up that Exhibit "X" whether there had been a credit for installation, freight or edge work, could you?

A. No, sir.

Q. Now, on this Duplate of Canada, the first item there appearing on this June, July, August and September, 1930, page, where it specifies that the credit memorandum was dated August 25th, you have put in under the column "Installation" $40.65. Are we to understand from that that the credit memorandum that you had before you stated that the entire credit was for installing some glass? [fol. 896] A. The memorandum would say for installing Duplate in a certain car, but in that charge for installation would probably be the cost of the glass, which would be shown in correspondence that was sent to Mr. Judson.

Q. You didn't look up the correspondence, did you?

A. I did not.

Q. So you don't know whether there was any cost of glass in that or not?

Mr. Christy: Mr. Master, I object to that as wasting time.

A. Not until it was looked up I wouldn't.

Q. Now, going over for the month of October, 1930, you show there that you gave a credit, which credit bill is dated September 10, 1930, issued to the Duplate Corporation of Canada for a credit of 110 feet of Duplate, presumably at a price of $180.49. Did I correctly read that item as appears on Exhibit "X"?

A. I did not get the date. It is October 10th.

Q. I should have said October 10th. Have you got it now?

A. Yes.

Q. Will you please point out to me in the account, any of the accounts that you filed here, where you sold 110 square feet to Duplate of Canada?

A. You want to know if any other sales were made to Duplate of Canada?

Q. I want to know where you have credited this plaintiff with 110 square feet of Duplate to any customer whose name is Duplate of Canada.

Mr. Smith: Do you mean credited in Exhibit "Z"?

Mr. O'Shea: I asked him to show me a credit to this plaintiff any place in this account of 110 feet of Duplate to any customer whose name is Duplate of Canada.

[fol. 897] A. I find no items listed on Exhibit "Z" as sale to Duplate of Canada. Sales might appear under the heading of sundry customers to the Duplate of Canada and not be listed separate, and it is quite true that Duplate of Canada may receive their Duplate from the Buffalo warehouse, in which case it would be billed from that warehouse.

Q. I don't think we are much interested here as to what might have been the fact, Mr. McHenry. The fact is that there is no customer called "Duplate of Canada" which is listed on Exhibit "Z" or Exhibit 9, showing the sale to that customer of 110 square feet. Isn't that so?

A. There is none in Exhibit "Z."

Q. Well, do you want to go through Exhibit 9?

A. That should be the same as Exhibit "Z".

Q. It ought to be the same. If you will turn to January, 1929, you will find there, will you not, an invoice to a customer named Duplate Safety Glass Co. of Canada for 3 feet 10 inches of plate glass at $9.58, making a rate per square foot of $2.50?

A. I have it. It is listed in Exhibit "Z".

Q. Where is it listed on Exhibit "Z"?

A. Same month, page 2.

Q. I find in the month of January, 1929, an item reading, "Duplate Safety Glass Co. of Canada, 3 feet 10 inches, $9.58." That is all right, isn't it, Mr. McHenry?

A. Yes, sir.

Q. And that, as I understand it, is the only item that you can find listed in Exhibit "Z" as having been sold to the Duplate Safety Glass Co. of Canada?

Mr. Smith: You mean by name, do you?

A. That is the only item set out that I can find.

Q. Now, you say that there is a possibility that this additional glass may have been sold to Duplate Safety Glass [fol. 898] Co. of Canada and is listed in Exhibit "Z", and presumably also in Exhibit 9, through some warehouse? Is that correct?

A. That is true.

Q. Now, if that be the fact, would the warehouse sell that glass at an additional price than what it paid to the Pittsburgh Plate Glass Company?

A. Yes, it would have to because it would have its freight and handling charges to take care of.

Q. Would it have any other additional price than that?

A. Well, they should figure on some profit; whether they did or not we don't know.

Q. Well, in any event, you gave no credit for any such profit in this account, did you?

A. We did not.

Mr. Christy: Defendants' counsel wishes to save an exception at this point. The defendants' proofs have been put in in answer to the proofs submitted by the plaintiff in chief. If plaintiff had wished to claim profits made by the warehouses of the Pittsburgh Plate Glass Company, such would have been a part of its case in chief, and it has offered no proofs on this subject. It should not now be permitted by improper cross-examination to lay a basis for an attempt in rebuttal to claim an additional profit not claimed in its original case.

Mr. O'Shea: Plaintiff's counsel simply states that he is cross-examining on proof that was submitted by the defense here—Exhibit "X", being a claim for credits.

Q. In this Exhibit "X" wherever the sale was made to a warehouse is it not a fact that the warehouse was specified?

[fol. 899] A. Well, Exhibit "X" does not cover sales to warehouses. It is charges from the warehouses to the home office for replacements.

Q. In Exhibit "X" wherever the credit was granted to a warehouse does not the exhibit specify the particular warehouse?

A. It does, but replacements were made by dealers whom the warehouse serves and the dealer would charge the warehouse; the warehouse in turn would charge the home office or Duplate Corporation.

Q. For example, taking up the month of November in Exhibit "X", the fourth item under November 4, I notice there an item, "Fisher Body Co." Does that mean that the credit was given direct to the Fisher Body Co.?

A. It does.

Q. And not to a warehouse?

A. Yes, sir.

Q. So that wherever we find on this exhibit an automobile manufacturer or a body builder listed as having received a credit, that credit did not go through a warehouse but was made direct to the named automobile manufacturer or body builder. Am I correct?

A. Yes, sir.

Q. Now, on the page encompassing the months of June, July, August and September, 1930, I call your attention to a credit given to the Pierce-Arrow Company under date of July 30th, presumably 1930. That is a listing of a specific credit given direct to the Pierce-Arrow Company, as I understand it?

A. That is true.

Q. And that entry or item on this list specifies that a credit was given for 954 feet and 5 inches of Duplate glass at a price of $3,340.61, and that in addition thereto an amount of $1,237.10 was included in the credit memorandum for installation. Am I correct in the statement of the item?

[fol. 900] A. Yes, sir.

Q. Now, will you please figure out what the rate per foot is of that credit? I am speaking now of the rate per foot of glass, not including the installation.

A. $3.50 per square foot. However, this credit being issued to Pierce-Arrow Company does not mean necessarily that Pierce-Arrow made the replacement. This replacement may have been made by a dealer in Pierce-Arrow cars for the Pierce-Arrow Company to which this dealer would add his profit onto the glass before he would bill the Pierce-Arrow Company for this replacement.

Q. You say he may have done that?

A. It is a practice that they do.

Q. Do you know whether it was done in this specific case or not?

A. I do not unless I would have an itemized list of the bill.

Q. Will you please take Exhibit "Z" or any other account that you filed in this proceeding, and show me any sale to the Pierce-Arrow Company, or anybody else, at a square foot ratage of $3.50?

Mr. Smith: That question is absurd.

Mr. O'Shea: I don't know of any objection in evidence that a question is absurd on cross-examination.

Mr. Smith: This witness has explained repeatedly that these items included these other items, and counsel is trying to give an impression there has been a sale at $3.50 a square foot, or attempting to prove that. It is ridiculous.

Mr. O'Shea: The witness hasn't said that. He said there may be some such things in some instances but he doesn't know.

The Witness: I said that is the practice at times.

[fol. 901] Mr. Smith: We object to the question as improperly incorporating evidence that the witness has not given or even intimated, to-wit, the sale at $3.50 a square foot.

The Master: I don't think he has intimated that.

Mr. O'Shea: He states right here that he gives a credit to the Pierce-Arrow Company for a sale of glass of 954 feet 5 inches, and that credit he claims to be $3,340.61, and he says that figures out to be $3.50 a square foot.

Mr. Smith: That was a credit, not a sale.

Mr. O'Shea: You can't give a man credit for something he hasn't sold.

By The Master:

Q. Can you give any answer in explanation of this, Mr. McHenry?

A. This item that you refer to is a credit to the Pierce-Arrow Company at $3.50 per square foot. It would cost the Pierce Arrow Company that much to have the glass replaced. This replacement was undoubtedly by a dealer. He may have purchased his glass at a price not exceeding $2.50 per square foot, but when he sells his glass, as he does in this replacement deal, naturally he is going to have his profit out of it, and charged it back to the Duplate Company through the Pierce-Arrow Company.

By Mr. Smith:

Q. What about his expenses?

A. His expenses are also included in his charges; freight on the glass when received, handling charge, installation cost; no doubt he has the edge work and cutting the glass to size and shape.

(Adjournment taken until Tuesday, November 29, 1932, at nine forty-five o'clock A. M.)

[fol. 902] Tuesday, November 29, 1932.

Met pursuant to adjournment.

Counsel present as before.

C. L. McHenry resumes the stand.

Cross-examination (continued).

By Mr. O'Shea:

Q. Mr. McHenry, in order to pick up where we left off last night, will you please state whether in any of the accounts filed here by you there appears a sale to the Pierce-Arrow Company at a square foot ratage of $3.50?

A. I don't believe there were any sales made to the Pierce-Arrow Company at $3.50.

Q. I call your attention to the original statement of account filed by the defendant company in this case, and particularly to the note appearing on the last page thereof, which reads as follows: "Pittsburgh Plate Glass Co. account for this item August, 1930 shows a loss of $4,461.00, covering period from start of Duplate Corporation to date." As I understand it, that note at the end of defend-

ant's original statement refers to commissions. Is that correct?

A. It is. That was the Pittsburgh Plate Glass Company's account on the general books.

Q. You have had then and still have, I assume, an account on the general books of Pittsburgh Plate Glass Company dealing with this commission?

A. We have; with the commission that they earned on the sales made direct from Pittsburgh office of Duplate.

Q. And what book does that account appear in?

[fol. 903] A. Well, it would appear in our general ledger.

Q. Will you please produce the general ledger containing that account?

A. I can bring the ledger sheets down, but to you, without an analysis of that account, they would mean nothing.

Q. Well, will you please bring the ledger sheets down?

A. I will.

Q. Mr. McHenry, have you an analysis of that account which appears on the general ledger of Pittsburgh Plate Glass Company?

A. We can make it up. It would probably take a day or day and a half.

Q. Just what do you mean by analysis? You mean a break down of the respective items that appear on there?

A. Yes, sir.

Q. I would prefer to have you just bring down the ledger sheets this afternoon, and then I can determine from that whether we need an analysis or not.

A. All right.

Q. About how many warehouses does the Pittsburgh Plate Glass Company maintain?

A. Seventy-one.

Q. Are those seventy-one located each in different cities?

A. Yes, sir.

Q. Is there a record available showing the sales of each of those warehouses?

A. We have the gross sales of each warehouse each month.

Q. Have you that record with you?

A. No, sir.

Q. Will you also bring that record this afternoon?

A. For what months do you want it?

Q. For the accounting period.

[fol. 904] Mr. Smith: I think there is a limit to how far we should be obliged to go in producing these books.

The Master: Maybe Mr. O'Shea is willing to pick out certain parts of that.

Mr. O'Shea: I am willing to make any agreement, but Mr. McHenry has testified to certain sales. It seems to me I am entitled on cross-examination to get a break up of what it is, to investigate it. I don't know of any limit, either in rules of court or the decisions of court, on my right to cross-examine or to investigate these books. I think the decree itself speaks for itself as to the broad investigation I am entitled to.

(Discussion off the record.)

Q. Have you also a record showing the sales of Duplate in those respective warehouses?

A. I think there is.

Q. In summary form for a year?

A. Yes.

Q. Will you also produce that this afternoon?

A. Yes.

Q. Or even the information that you can get from your records on which you can testify in the record what it is. Is there some general record also, Mr. McHenry, as to the expenses of the respective warehouses of Pittsburgh Plate Glass Company?

A. We have that in summary form.

Q. Will you please bring that down this afternoon also?

A. Yes.

Q. Can you state, Mr. McHenry, what products these respective warehouses sell?

A. Paint, glass lacquers, brushes, putty, frame mirrors, various other building and glazing materials.

[fol. 905] Q. Can you give a little bit better definition of what you mean by "various other building and glazing materials"? Or perhaps you said billing glazing materials.

A. Building and glazing. In that would be putty, easy-set store front construction, brads that are used in putting in glass. Linseed oil, of course, would be included in the paints. That is about all I can recall at this time, although there are hundreds of other items.

Q. Mr. McHenry, Defendants' Master's Exhibit "U" which you have before you—was that made up from the

specific records of the Pittsburgh Plate Glass Company?

A. We used the requisitions of the Pittsburgh Plate Glass Company to find out what glass was delivered on these orders that are tabulated on this exhibit.

Q. And also to find out what glass was actually used in making up the order?

A. Yes, that would follow the same order.

Q. Well, are all of those items on there taken from actual records that you have, or are some of them estimated to some extent or other?

A. Mr. Datz made up this exhibit and I understood from him that he had checked the receiving slips of the Pittsburgh Plate Glass Company to arrive at the quantity and size furnished on each order as shown on the exhibit.

Q. Am I to understand from that last question that you do not know whether in making up Exhibit "U" estimates were used, or whether actual records were used in every instance?

A. I am safe in saying that no estimates were used.

Q. Will you look at General Order No. 2057. I think it is the third line on Exhibit "U," and shows plates in the amount of 5940.

[fol. 906] A. I have it.

Q. Are you familiar with Mr. Datz's handwriting enough to determine whether that is his handwriting?

A. It is.

Q. Can you tell from looking at the document which I have handed you whether that is the calculation of Mr. Datz on which he based his figures contained in Exhibit "U"?

Mr. Smith: If the Master please, if this is going to be an examination of a schedule which has been prepared by Mr. Datz and not by the witness, we object to the cross-examination of this witness, and ask that that be addressed to Mr. Datz who prepared it and not to a man who will testify by hearsay.

The Master: Objection sustained.

Mr. O'Shea: This exhibit was put in by Mr. McHenry.

Mr. Christy: We will produce Mr. Datz.

(Mr. McHenry's cross examination is hereupon interrupted and Mr. Datz takes the stand to testify with respect to Defendant's Master's Exhibit "U.")

PHILIP F. DATZ, recalled.

Cross-examination.

By Mr. O'Shea:

Q. Now, Mr. Datz, I understand you prepared the detail of Defendant's Master's Exhibit "U." Is that correct?

A. That is correct.

Q. Will you please state whether all of the items on Defendant's Master's Exhibit "U" are taken from actual records of Pittsburgh Plate Glass Company?

[fol. 907] A. Practically all of the items as shown on Exhibit "U" are taken from the actual delivery slips at Works No. 1 of the Pittsburgh Plate Glass Company, to the Duplate Corporation.

Q. When you say "practically" you mean that some of those which appear on Defendant's Master's Exhibit "U" are not taken from the actual delivery slips?

A. That is correct, as the delivery slips were not available at the time this record was made.

Q. There are some items then on Defendant's Master's Exhibit "U" for which you had no delivery slips, and therefore you used some system of estimating what was used or delivered. Is that correct?

A. That is correct.

Q. That particularly is true of General Order No. 2057 and General Order 2311, is it not?

A. That is correct.

Q. Do you know or are you able to determine from any records that you have here as to whether the same thing is true with respect to any other item appearing on Defendant's Master's Exhibit "U"?

A. Not without referring to the individual items as shown on the exhibit.

Q. You mean by that to the records from which you worked in order to get the individual items as shown on the exhibit?

A. That is correct.

Q. Will you please state, Mr. Datz, just how many plates in General Order 2057 you did not have requisition slips for, and how you made your estimate with respect to those items or those parts of a particular item that appears on

Defendant's Master's Exhibit "U" in determining the amount of glass used?

A. The order G. O. 2057 specifies 3000 Duplate, necessitating 6000 polished plate sheets of glass. We were able [fol. 908] to locate through the delivery slips and account for 3006 plates of polished plate glass.

Q. Out of a total of what?

A. 6000 plates. We have taken the difference between 6000 plates in this particular instance, which is 2934 plates, and added same to the deliveries by the Pittsburgh Plate Glass Company as shown on the delivery slips which we were able to locate.

Q. Now, as I understand it, Mr. Datz, this General Order 2057 calls for single polished plate glass in the amount of 5940 plates. Is that correct?

A. No, sir. It calls for 6000 single polished plates.

Q. And you were able to find delivery slips showing a delivery to Duplate of 3006 single polished plates of glass?

A. That is correct.

Q. And you were unable to find 2934 single polished plates of glass?

A. We were unable to locate the delivery slips from the Pittsburgh Plate Glass Company to Duplate covering the 2934 polished plate glass furnished for this particular order.

Q. Then, in computing the cutting loss for these 2934 plates, what did you do?

A. We multiplied the 2934 polished plates by the loss derived from the original size of the polished plate glass purchased from the Pittsburgh Plate Glass Company in bracket and the size billed to the customer in bracket, amounting to .4445, giving a total of 1304 feet loss.

Q. Am I correct then in my understanding that in making that estimate you assumed that the same bracket was used in the 2934 plates for which you were unable to find delivery slips as was used in the 3006 plates for which you were able to find delivery slips?

[fol. 909] A. The pattern furnished on this particular order, which was a back light for one of the Fisher Body cars, necessitated the same size as furnished and shown on the delivery slips covering the 3006 plates delivered.

Q. And for that reason you did assume that the same bracket was used in the 2934 as was used in the 3006?

A. We assumed it knowing that it would have to be that particular bracket.

Q. However, in some items on Defendant's Exhibit "U" for a particular order different brackets were used to make up that particular order, were they not?

A. Yes, sir.

Q. Notably on No. E-274, calling for 11,500 plates of Duplate, for which, according to Defendant's Exhibit "U," you put in Defendant's Exhibit "U" under the heading "Actual Size Polished Plate taken from Stock" the following brackets, to-wit, 16½ by 26; 17 by 26; 18 by 26, and 18 by 28. Is that correct?

A. That is correct.

Q. And under the heading, "Bracket Size Polished Plate Billed to Duplate," you used the following brackets: 18 by 26; 18 by 26; 18 by 26, and 18 by 28. Is that correct?

A. That is correct.

By Mr. Smith:

Q. Mr. Datz, you have been interrogated concerning two orders on Exhibit "U," to-wit, General Order 2057 and General Order 2311. Is it not the fact that those are the only two orders on that exhibit which contain estimates?

A. Without referring to each individual order as shown on this exhibit, I am unable to state.

Q. Will you please examine your records and prepare yourself to answer that question?

[fol. 910] A. I will do that.

Q. And if there be any others that contain estimates, prepare yourself to indicate them to the Master.

A. I will do so.

C. L. McHenry, resumes the stand.

Cross-examination (continued):

Mr. O'Shea: Plaintiff wishes to interpose an objection to Defendant's Master's Exhibit "DD" on the ground that it is incompetent, irrelevant and immaterial.

The Master: We will accept it for the present and decide later as to its materiality.

By Mr. O'Shea:

Q. Mr. McHenry, have you got before you Defendant's Master's Exhibit "II"?

A. I have.

Q. Am I correct in my understanding that this Exhibit "II" constitutes your idea of the respective individual items and the total of those individual items which you believe were excluded from Plaintiff's Exhibits 9 and 9-A?

A. It is. They were taken from that exhibit.

Q. And similarly, under the caption in Defendant's Exhibit "II," "Company's Estimated Cost of Rejects charged to Process, Cost Later Deducted," am I correct in my understanding that it is your thought that Plaintiff's Exhibits 9 and 9-A eliminate or deduct the amount given under that heading, to wit, $60,334.61?

A. I took it to mean that because it appeared in Exhibit 9-A among the losses.

Q. Will you please point out in Exhibit 9-A where you took that figure from?

A. It is on the last page of the exhibit.

[fol. 911] Mr. Christy: The copies of Exhibits 9 and 9-A from which the witness says that he prepared Defendant's Exhibit "II" included also Plaintiff's Exhibit No. 10, the sheets constituting No. 10 having been pasted into my copy of Exhibit 9-A for my convenience by the defendants' witness Sharpe. The offer of Exhibit No. 10 will be found at page 134 of the manuscript record.

Mr. Smith: Now may we have it noted on the record that the heading of Exhibit "II," where in the parenthesis at the end is recited "Plaintiff's Exhibits 9 and 9-A," may be amended to read, "Plaintiff's Exhibits 9, 9-A and 10?

The Master: It may.

Mr. Christy: Obviously, in the last answer the witness should have referred to the second sheet of Exhibit No. 10.

Q. Do you adopt counsel's statement, Mr. McHenry?

A. I do.

Q. Now, please turn to Plaintiff's Exhibit 10, and point out the figure amounting to $60,334.61.

A. This is on the second column from the right.

Q. And that appears under a heading, "Company's Estimated Cost of Rejects Charged to Process, Cost Later Deducted (see Contra)," does it not?

A. It does.

Q. Did you look to see what the expression in parenthesis, "See Contra," means?

A. I could not locate where this was added back.

Q. In the monthly statements, which are marked in evidence here as Plaintiff's Exhibit 9, there appears in each a statement entitled, "Detail of Contested items eliminated from cost of Duplate sales," does there not?

[fol. 912] A. There is.

Q. Now, will you please turn to the monthly statement for April, 1929, included in Plaintiff's Exhibit 9?

A. I have it.

Q. Do you not find there the figure $60,334.61, which is the corresponding figure to the $60,334.61 which appears on Plaintiff's Exhibit 10?

A. I find it.

Q. Immediately beneath that in the monthly statement for April, 1929, which is a part of Plaintiff's Exhibit 9, is there not an off-setting item in the amount of $59,645.69?

A. There is.

Q. Is it not true that the effect of those two items is that Exhibits 9 and 9-A eliminate from cost of Duplate sales only the difference between the figure $60,334.61 and $59,645.69, or $688.92?

A. That is correct.

Q. So that Defendant's Master's Exhibit "II" then is incorrect in its statement that Plaintiff's Exhibits 9, 9-A and 10 eliminate from Duplate's cost of sales the amount of $60,334.61, is it not?

A. That would be correct in the whole. However, in preparing my exhibit I used the exhibit as filed by Mr. Sharpe, which is Exhibit 10.

Q. In other words, what you mean to say now is that you took from Exhbit 10 the figure of $60,334.61, which appears on Defendant's Master's Exhibit "II," and did not trace the contra entry which is indicated on Exhibit 10? Is that correct?

A. That is correct. In preparing my Exhibit "II" I accepted or used the figures as stated by Mr. Sharpe in the preparation of his Exhibit 10.

Q. But the fact is that in the account as shown in Exhibits 9, 9-A and 10 and all the other exhibits there has not been eliminated the sum of $60,334.61?

[fol. 913] A. That is correct. If I had been preparing Exhibit 10 originally, I would not have put in the $60,334.61.

Q. Now, I call your attention also, Mr. McHenry, to the item appearing on Defendant's Master's Exhibit "II" under the sub-heading, "Salvaged or Reclaimed Stock taken into Possession," and amounting in total for the accounting period to $151,435.65, and I ask you where you find in Plaintiff's Exhibits 9, 9-A and 10 the statement that those exhibits eliminate from Duplate's costs $151,435.65 as salvaged or reclaimed stock taken into possession?

A. This amount appears on the third column from the right of Exhibit 10.

Q. And that is entitled on Exhibit 10 as follows: "Adjustments Resulting from Revaluations of Opening and Closing Inventories Based on Adjusted Cost." Is that right?

A. It is.

Q. So that that item does not have to do with a salvaging process, does it?

A. It does not. It looks to me now as a typographical error, as if the stenographer started with the fourth column, which is "Salvaged or Reclaimed Stock, value per Company, included in Costs," which amounts to $162,235.83, and took the amounts appearing under the next column which totals $151,435.65. This item of $162,235.83 does not seem to appear on Schedule "II." Apparently that is what has happened, as I do not locate the item of $162,235.83 which should have been under the heading that is placed here of "Salvaged or Reclaimed Stock Taken into Possession." That total should be $162,235.83, and another column should be included for "Adjustments Resulting from Revaluations of Opening and Closing Inventories Based on Adjusted Cost" of $151,435.65. In typing Schedule "II" the steno-

[fol. 914] rapher has erred, and in checking it back it was not caught.

Mr. Smith: We will ask permission to substitute the proper schedule.

Mr. O'Shea: You can't substitute an exhibit that is already in. You can correct it. If there are any corrections

that are necessary, I think the defense has full liberty to make such corrections as they may see fit.

Q. Now, Mr. McHenry, as I understand your explanation, it is that the heading, "Salvaged or Reclaimed Stock taken into Possession," appearing over the total figure of $151,435.65, is incorrect and should read in some other language. Is that right?

A. It is true. The amount of $151,435.65 as shown should be $162,235.83. That would make the salvaged or reclaimed stock taken into possession correct. Then there should be added to Exhibit "II," which was missed in typing, another column for adjustments resulting from revaluations of opening and closing inventories based on adjusted cost, the total of which is $151,435.65.

Q. Now, referring to the item which you now call "Adjustments Resulting from Revaluations of Opening and Closing Inventories Based on Adjusted Cost," and amounting to $151,435.65, have you traced through the accounts as shown in Plaintiff's Exhibits 9 and 9-A to determine whether or not there were any offsetting charges against that item?

A. I have not. I have accepted this statement, Schedule 10, as filed by Mr. Sharpe. The heading of this statement is "Recapitulation of Contested Items Eliminated from Cost of Duplate Sales, Stated in Dollars."

Q. Well, will you look at Exhibit 9, and tell us whether there appears in that Exhibit 9 offsetting items against this [fol. 915] adjustment resulting from revaluation of opening and closing inventories, amounting to $151,435.65? In order to help you, Mr. McHenry, I suggest you turn to February, 1929, July, 1929, August, 1929, January, 1930, and March, 1930.

A. These statements were prepared by your accountant and I don't think it is up to me to trace these items and explain, as this accounting is so complicated it would take some time to follow them through and see whether they were actually taken out or not.

Mr. Smith: We object to the cross-examination of the witness in attempting to trace out Mr. Sharpe's figures, some of which it has already appeared are erroneous, and suggest it is improper to attempt to correct their own accounting by cross-examining the defendant's witness.

Mr. O'Shea: Now, Mr. Master, I think it is wholly improper that it be put in an objection that the figures of what counsel calls Sharpe's are incorrect. I don't know of any showing that any figures that Mr. Sharpe has put in are incorrect. However, passing that for the moment, what I am doing here is this: Mr. McHenry has offered in this case Defendant's Master's Exhibit "II," which he specifically designates as being figures taken from Exhibits 9, 9-A and 10. Now I am cross-examining him on that to show that Mr. McHenry has failed to properly show the effect of Exhibits 9, 9-A and 10. That seems to me to be perfectly proper cross-examination. It is his testimony; this exhibit is his testimony, and I am simply cross-examining him on it.

(Discussion off the record.)

The Master: In answer to Mr. Smith's objection, I sustain it.

(Exception noted to plaintiff.)

[fol. 916] Q. Now, Mr. McHenry, still referring to Defendant's Master's Exhibit "II," will you please state where you find in any of the Exhibits 9, 9-A and 10 the figure appearing upon Defendant's Master's Exhibits "II" under the heading, "General Expense," and amounting in total to $12643.47?

A. These amounts were taken from Exhibit 9. You will notice in the income account for December, 1928, the amount, "Proportion of General Expense Representing Deduction of Cost of Duplate Sales," $69.83, which is set in the contested items of cost and expense.

Q. Now, in that same month of December, 1928, over on the page entitled "Detail of Contested Items Eliminated from the Cost of Duplate Sales," Exhibit 9 puts that $69.83 back into cost, doesn't it?

A. This sheet shows the items eliminated, a total of $100,418.46 less a total of $45,992.21. In that total last mentioned is the item $69.83, but in computing the cost on the income account the item of $69.83 is not used as an item of cost.

Q. Without checking up the figures, Mr. McHenry, can you state the source from which you took the item appearing on Defendant's Master's Exhibit "II" under the sub-

heading, "Triplex Suit and Legal Expense," amounting to $20,351.45?

A. This I took from the Duplate records, and it corresponds with the amount shown by Sharpe.

Q. I assume that you mean when you say "as shown by Sharpe" either Exhibits 9, 9-A or 10?

A. It is shown in Exhibit 9 or 9-A. These items are all shown in Sharpe's Exhibit 9.

Q. Again, Mr. McHenry, without computing the figures, will you please state from what source you took the figure appearing on Defendant's Master's Exhibit "II" under the sub-heading, "Credit for Returns not Allowed," and amounting to $722,717.38?

[fol. 917] A. The total returns as shown in Exhibit 9-A, page 6, is $820,646.06. From this we took the allowance for returns as shown on page 15 of the same exhibit under Column "C" of $181,490.10, leaving a balance of $639,155.96. To this we added the returns received since May, 1930, as shown in Exhibit "W" of $83,561.42, making a total of $722,717.38, as shown on Exhibit "II."

Q. Then, as I understand it, this item on Exhibit "II" under the sub-heading "Credit for Returns Not Allowed" does not appear in its entirety in Plaintiff's Exhibits 9, 9-A or 10?

A. It does not. To the amounts shown on Exhibit 9 we have added the amount shown in Exhibit "W", being the returns received since May, 1930. Exhibit "W" covers returns manufactured with gelatine during the infringing period.

Q. Mr. McHenry, on page 6 of Exhibit 9-A the figure which you have used in order to arrive at $722,717.38, as appears on Defendant's Master's Exhibit "II", and being $820,646.06, is not the amount of the returns used by Sharpe in computing 9-A, is it?

A. That is the total returns, and Mr. Sharpe only gave us credit for $181,409.10.

Q. Well, doesn't it appear on page 6 that the figure $820,646.06 is stated to be the returns as per the account filed by the Duplate Corporation?

A. It is.

Q. And the next item on that page states that as per the monthly income accounts, by which [redacted] meant the Exhibit 9,

the return sales taken into consideration by Sharpe in 9 and 9-A amount to $812,707.93?

A. That is correct.

Q. Now, Mr. McHenry, on Defendant's Master's Exhibit "II" there is one other item I am unable to check, and that is the item appearing on there under the sub-heading "Ex-
[fol. 918] perimental Expense", and amounting to $139,-729.30. Am I to understand that you took that figure under that sub-heading, "Experimental Expense", from either Exhibit 9 or 9-A?

A. I took it from Exhibit 9.

Q. Have you got an itemization of the items that you took off Exhibit 9?

A. I have by months.

Q. Will you let me see that for the purpose of checking?

A. Yes, sir. (Paper handed to counsel for plaintiff.)

(Recess taken until 1.45 o'clock P. M.)

[fol. 919] Afternoon Session

L. C. McHenry resumes the stand.

Cross-examination (continued).

By Mr. O'Shea:

Q. Mr. McHenry, you have you work sheet on that experimental expense showing where you obtained the $139,-729.30 as appears on Defendant's Exhibit "II"?

A. Yes, sir.

Q. Do those totals by the year amount to as follows on your work sheet: $49,973.69 for 1928; $48,447.16 for 1929, and $40,826.45 for the first five months of 1930?

A. They are the amounts shown. I notice that the amount used on the exhibit does not tie in with the first five months of 1930. They must have made a correction that is not noted on the work sheet.

Q. Have you any records here from which you can find out what that correction might have been?

A. I cannot locate any amount of $482, which is the difference between my work sheet and the amount shown on Schedule "II", at this time.

Q. Referring to Exhibit "W", which I understand is an itemization of defective glass which was returned by some of the customers to the Pittsburgh Plate Glass Company at Pittsburgh, are you able to state as to whether or not there was any salvage value in that glass, assuming that my understanding of the exhibit is correct?

A. Mr. Datz testified as to the salvage value in this glass that was returned after our accounting closed, and I am not familiar with the details of it.

Q. The Pittsburgh Plate Glass Company sold certain glass to its warehouses, which is generally referred to in the trade as block sizes, did they not?

[fol. 920] A. They did.

Q. Are you sufficiently familiar with the manufacturing process to enable you to state whether there would be any glass cutting loss in the manufacture of those block sizes?

A. I am not sufficiently familiar with that specific item.

Q. You don't know the manner in which they made up the so-called block sizes?

A. I know the manner in which they made them up, but I am not versed on the loss they might suffer in cutting.

Q. Do you know whether the books show that there was any glass cutting loss in making up those block sizes?

A. Which books do you refer to—the books at the warehouse after the glass was laminated or before the glass was laminated.

Q. Well, let us take it before the glass was laminated.

A. It would be impossible for me to say whether there was any loss in cutting before it was laminated.

Q. Have you the warehouse records with you this afternoon, Mr. McHenry?

A. I have as to sales and expense for the years 1928, 1929 and 1930.

Q. Can you state from those records what the total sales of the warehouses were for the year 1928?

Mr. Smith: Total sales of what?

Mr. O'Shea: Total sales of all merchandise.

A. Total sales for year 1928, $50,015,982.52; that includes polished plate, other glass, paint, and all other items sold by the warehouse.

Q. And can you now state from those records what the total expenses were of the warehouses in the year 1928?

[fol. 921] A. Total warehouse expense for 1928 was $8,191,352.08.

Q. That total sales, amounting to $50,015,982.52, includes the Duplate as well as all other products?

A. It does.

Q. Now, will you give me the total sales of the warehouses for the year 1929?

A. Total warehouse sales is $36,919,882.31.

Q. Can you give me now the total expenses for the warehouses in the year 1929?

A. $8,237,579.80. These sales do not include factory sales, and the expenses do not include the proportion of warehouse expense apportioned to factory sales.

Q. Does that last answer apply to 1928 as well as 1929?

A. Yes, sir.

Q. I don't quite understand why factory sales should be included in warehouse sales. Can you help me understand that?

A. A factory sale is a sale made by the warehouse that is shipped direct from the factory to the consumer, does not go through the warehouse stockroom at all.

Q. Have you got the factory sales, as you have just now defined that term, for the year 1928?

A. For the year 1928 the factory sales were $5,369,631.68.

Q. Now, as I understand it, your method of accounting apportions some other type of expense other than the expense which you have testified to in 1928 as being $8,191,352.08?

A. In the year 1928, $8,191,352.08 was the total expense which would be applied to both warehouse and factory sales.

Q. Does your record indicate how much were the actual warehouse expenses in the year 1928?

[fol. 922] A. None other than the figure I have given you.

Q. Which includes a proportion of some expense other than the actual expense of the warehouses for that year?

A. It includes the expense in handling the sales that go directly from the factory to the customer.

Q. And your record does not show how much you charged for that expense of handling?

A. It does not.

Q. Will you give me the factory sales for the year 1929?

A. $16,149,037.40.

Q. That, as I understand it, is in addition to the $36,919,882.31 which you testified to before?

A. It is.

Q. Is there any segregation on your records for the year 1929 of the warehouse expenses as given by you in the amount of $8,237,579.70?

A. We have additional expense that has been applied to factory sales of $160,923.53.

Q. As I understand it, that $160,923.53 is what your books apportioned for the handling by the warehouses of the sales amounting to $16,149,037.40?

A. That is correct.

Q. Now, I assume you have only got your record there for 1930 in the total year's amount?

A. I can give it to you for the first five months.

Q. Let us have the same figures for the first five months.

Mr. Smith: Is this factory sales or warehouse sales?

Mr. O'Shea: Total sales for the first five months and after that the factory sales, if you wish to give it that way.

A. The warehouse sales are $14,224,410.32; the factory sales are $4,717,942.75.

[fol. 923] Q. Now the expenses if you have them.

A. The expenses for the first five months: warehouse are $3,430,190.11; expense on factory sales, $41,755.16. Now, you must not lose sight that this is only the warehouse expense. There is also a portion of general office expense that is applicable to warehouse sales.

Q. Well, does that last statement apply to the previous years as well as 1930?

A. It applies to all years.

Q. Mr. McHenry, do your general books show whether the warehouses, operating as a separate entity, made a profit in the year 1928?

A. They do.

Q. Are you able to testify as to how much that profit was in the year 1928, or loss?

A. Not at the present time.

Q. That is true of the other years too?

A. Yes.

Q. Are you able to testify generally as to whether they did make a profit or a loss?

A. I can give you the cost of sales and you can deduct it from your sales. That will give it to you with the exception of the general office expense.

Q. You mean you can give it to us now from the records you have got here?

A. Yes, sir.

Q. But you couldn't answer my question offhand as to whether it was or not?

A. No.

Q. If we had the cost of sales, you still would have to give us the general office expense to determine whether there was a profit or loss?

A. Yes, sir.

Q. Mr. McHenry, you have produced the Pittsburgh Plate Glass Company's ledger sheets showing the account which is referred to in the note at the end of defendant's original [fol. 924] statement of account, have you?

A. I have.

Q. Those consist, as I understand it, of really two accounts—one entitled "An Earnings Account," and the other entitled "An Expense Account." Have I correctly stated what they consist of?

A. That is correct.

Q. Now, just what sort of charges went into that part of the account which is entitled "Earnings Account"?

A. The sales and cost of sales.

Q. Am I correct in my understanding of that that your method of keeping that account was that you credited that account with the glass sold by Pittsburgh Plate Glass Company and debited the account with the sale of such glass less the commissions? Now, maybe I have used the words "Credited" and "Debited" wrong. If I have, correct me—if that is the only wrong thing I have said.

A. Well, this account is practically a commission account. It is offset by the difference between the sales price and the charge to it of cost of sales on the sales made by the Pittsburgh office.

Q. It is only the Pittsburgh office?

A. Yes.

Q. Well, of course, the sales made by the Pittsburgh office to the warehouses would be in there too, would it not?

A. It may include the gross. I would have to check that with the total sales, but the difference between the debit

and credit would be the commission that the Pittsburgh office earned only.

Q. That is my understanding of the account. Now, the other part of that account, which we referred to as the expense account, had certain expenses which Pittsburgh Plate Glass Company deemed should be offset against the net [fol. 925] amount in the earnings account. Is that a correct statement?

A. That is correct.

Q. Now what were the general type, if you can give us a general definition, of the kind or character of expenses that went into that expense account?

A. Well, in this account would be represented office rent, office supplies, and traveling expense; also salaries of the traveling salesmen. However, in the first year or first year and a half the salesmen's salaries are not charged to this account, which in preparing my exhibit——

Q. What exhibit?

A. The first one.

Q. That is called in the record the defendant's original statement of account?

A. In preparing my original statement of accounts it was necessary for me to include as an expense these items that did not appear in the expense account of the Duplate Corporation. Also, there is a portion of general office expense that is not charged on these ledger sheets that we have here.

Q. Well, is that portion of general office expense included in defendant's original statement of account?

A. It is.

Q. You have now given us sort of a general explanation of the character of items that went into the expense account as shown on your general ledger?

A. I have.

Q. Now the earnings account for the year 1928. Does that show a profit?

A. It does.

Q. In what amount?

A. In the amount of $45,699.40. This represents commissions earned.

Q. Now, against that, of course, would be the total of the charges for the year 1928, as set forth in the account that [fol. 926] we have been calling here the expense account?

A. That is correct, with the addition of the general office charges that were not posted to this account.

Q. Will you please give us the expenses set up in the expense account for the year 1928?

A. $17,883.86.

Q. Which would leave a profit, as I understand it, to the Pittsburgh Plate Glass Company, at that point in the statement of account in any event, of $27,515.61. Is that correct?

A. It would without considering the general office ex-expense and charges for salesmen that were originally not charged to this account.

Q. Then, from that it is your thought that there should be deducted these general office expenses and salesmen's expenses, and what else?

A. That is all.

Q. The salesmen you have in mind were working on what sales?

A. On Duplate sales alone, out of Pittsburgh office.

Q. On Duplate sales only out of Pittsburgh office?

A. Yes, sir.

Q. Can you explain just why in the year 1928 the salaries of the salesmen working out of the general office were not charged into that general expense, if you know?

A. It would be my idea that it was just overlooked, because some of these men were working at desks in the office of Pittsburgh Plate Glass Company on Duplate sales alone; other men were on the road, and their salaries were not segregated until a later date.

Q. Perhaps this will shorten this up, Mr. McHenry. Can you state from the records which you have how you arrived at the loss of $4461 to which you have referred in a note at the end of defendant's original statement of account?

[fol. 927] A. I took all the earnings as shown by the Duplate earnings account, all the expenses as shown by the general expense Duplate account; to which expense I added the salaries and the general office expense that should have been applied to Duplate sales, to arrive at my figure. In making this analysis I recall that it took me several days to get the matter straightened out because I had to analyze the payrolls to see what the men were doing in the sales department in order to apply their expense to the Duplate sales account.

Q. Do I understand from that last answer that you made some sort of apportionment on some salaries?

A. No. I took the men that were working direct on Duplate sales and added the expense of their salaries to the account in arriving at my four thousand dollar loss.

Q. $4461?

A. Yes.

Q. Well, am I to understand from what you have just said now that the expenses, including general office and these direct salaries, only exceeded the commissions by the sum of $4461?

A. During the period of two years and a half—two years and five months.

Q. Your note here says that was true up until August, 1930.

A. Well, if it says to August, 1930——

Q. Does that note refresh your recollection that the figures that you took into account in arriving at that figure given in the note ran up until August 1st or July 31st or August 31st—which?

A. It was taken up to August, 1930, as shown on the note.

Q. Would that mean August 1st or August 31st?

A. I do not recall at this time.

Q. Let us call it August 1st or July 31st. So that in making up that account you took into consideration two [fol. 928] years and seven months—at least two years and seven months?

A. Yes.

Redirect examination.

By Mr. Christy:

Q. Referring to this last matter, Mr. McHenry, of the note at the end of the original statement, which reads as follows: "Pittsburgh Plate Glass Company account for this item (commissions) August, 1930, shows a loss of $4461, covering period from start of Duplate Corporation to date." Will you please look at Defendants' Exhibit "BB"?

A. I have it here.

Q. This Exhibit "BB" shows a loss in selling expense to the Pittsburgh Plate Glass Company of over $318,000.

Can you reconcile these two statements, or explain what this difference is and how it arose?

A. In preparing the original statement I included the accounting up to August to show that at that time the commissions of the Pittsburgh Plate Glass Company showed a loss, which was apparently August 1, 1930. In preparing Exhibit "BB"——

Q. Well, just stop there. You mean that the commissions of which you gave the total in your original statement showed that loss in August, 1930, at that time?

A. Yes. That was the commissions earned by general office only.

Q. Now proceed.

A. In preparing the Exhibit "BB" I took in the commissions earned both by the general office and the warehouses, and charged to that the proportion of the expense of the warehouses and the actual expense of the general office, making the loss $318,430.70, but the commissions shown on Exhibit "BB" are only taken up to the end of May, 1930.

[fol. 929] Q. We will drop that matter of two months. I don't care about that. What I want to do is that you shall make the Master clearly understand what you were dealing with at the time you made this note on your original statement, and what you were dealing with at the time you made that Exhibit "BB."

A. As I stated before, the note on the original statement dealt only with commissions earned by the general office on sales direct to automobile builders or body builders, and in Exhibit "BB" all the commissions earned, both by warehouses and general office, are shown.

Q. And you have also shown on Exhibit "BB" the actual expenses as computed by you in the manner stated in your former testimony. Is that right?

A. Yes, sir.

Q. You were interrogated yesterday in the matter of these replacements made after the end of the accounting period of Duplate manufactured and sold during the accounting period, as to certain replacements charged or credited (I don't know which is the correct term) to a Canadian company. Have you looked up the details of these items?

A. I have presented statements showing these credits.

Q. Now take those statements—I don't want to offer them in evidence if they are not necessary, but tell us where the Canadian company got the glass which they used for replacement, and check them with the corresponding figures in Defendants' Exhibit "X."

Mr. O'Shea: May I ask is this testimony referring to that Duplate of Canada?

Mr. Christy: Yes.

Q. (Continued.) In other words, explain generally the nature of these replacements.

[fol. 930] A. These credits do not show where the Duplate of Canada purchased their glass, but a notation on the invoice against the Pittsburgh Plate Glass Company for the glass replaced reads as follows: "To debit you with the amount of defective American Duplate returned and charged to us by Studebaker Corporation as follows:" Under which is listed the serial number of the car, the reason for the replacement; and the total charge. From this it would indicate that the Studebaker Company made the replacements, charging them to the Duplate Company of Canada, who in turn charged them back to the Duplate Company in America.

Q. Do these papers which you have indicate why this procedure should have been followed?

A. In a letter from Duplate Safety Glass Company of Canada, dated May 10, 1930, it states as follows: "Replying to your letter of May 5th with further reference to the eleven lights of defective Duplate which we have taken in from General Motors of Oshawa, General Motors have agreed to a credit of $1.75 per square foot for this glass. We will, therefore, give them this credit immediately and in return get credit from you."

Q. That is referring to another instance of replacement, is it?

A. It is.

Q. Now, isn't there something in that correspondence as to this second instance where it appears that Duplate Corporation, defendant here, asked this Duplate Company of Canada to pass on these alleged defectives and to replace them if, in its judgment, they should be replaced?

A. In a letter of May 2, 1930, from the Duplate Safety Glass Company of Canada to Pittsburgh they state that

they have inspected these eleven lights and find that they all show bad separation, in most cases one inch or more [fol. 931] in depth, and the rejection is quite justified in their opinion. This letter is answered on May 5th by the sales department of the Pittsburgh Plate Glass Company and the Duplate, in which they state that "We will be only too glad to credit you with these eleven lights which you have taken in and would appreciate having you advise the basis on which credit is to be given."

Q. That would indicate a replacement actually made in Canada, wouldn't it?

A. It would, yes.

Q. Now, will you identify the particular items on Exhibit "X" to which these documents which you have before you refer?

A. In the month of December, 1930, on page 2 of Exhibit "X," there appears the amount of $157.32, of which $143.80 is for glass, $7.52 freight, and $6.00 for boxing. Now, in that charge for glass of $143.80, which makes an average price of $4.56 per square foot, there apparently is included the cost of installation. As you will notice from these bills, installation cost isn't set out.

Q. That is, the bills in the documents you have before you?

A. Yes, sir. On the same page for the same month in Exhibit "X" there is also an item for the Duplate of Canada for 12 feet 8 inches, total charges $55.96; the average there being $4 per square foot for glass. That item, too, no doubt, has installation cost included in the price of the glass.

Q. And the documents which you have in your hand pertain to both of these December items, do they?

A. They do.

Q. Now, the other set of documents. Have they to do with the May-September, 1930, charges on Exhibit "X"? [fol. 932] A. Apparently they do. There is so much correspondence here the items do not check exactly, as the one item for Duplate of Canada, which is listed as September 16th, credit is given for $81.96 on Exhibit "X." The papers here indicate $80.89, which is for 46.2222 at $1.75. No doubt in the correspondence an explanation would be set forth showing why this amount was increased

from $80.89 to $81.96. That is the only invoice that is attached to this correspondence.

Q. For that period?

A. Yes, sir.

Q. There are a few original letters from this Canadian Duplate Company, which are signed "Duplate Safety Glass Co. of Canada, Limited," and there is also a legend printed on the sheet, "Manufacturers of Duplate Non-Shatterable Glass." Mr. O'Shea asked you yesterday if there was any connection between that Canadian company and the defendant here, and you said you did not know of any. With these letters before you, do you know of any now?

A. I do not.

Mr. Christy: The documents to which the witness has testified are handed to Mr. O'Shea.

Q. Yesterday I think you were asked by Mr. O'Shea to produce similar detail information regarding two items on Exhibit "X," on the sheet June-September, 1930, both dated "7/30," one a transaction with Pierce-Arrow and the other a transaction with the title "Chicago-Studebaker." Did you give Mr. O'Shea those documents this morning?

A. I did, and in this connection I notice while these credits are for labor only, I questioned our sales department why they inserted on the credit memorandum that was issued so many feet of glass at $3.50 a foot. They said that was merely to give some distribution of the charge, that it was only an estimate, and by checking back [fol. 933] these credit you will see that it is just an estimate because I have found no items in here so far that would indicate that credit was issued for this glass at $3.50 a foot.

Q. But that does not affect the figures on Exhibit "X" in the last column headed "Total," does it?

A. It does not, but it does affect the rate that you will get by dividing the footage into amount shown under glass. Included in that glass item is charges for installation.

Q. And sometimes for boxing, I suppose?

A. Boxing might be included. I explained previously in my testimony that charges as shown in Exhibit "X" were not properly divided as to the cost under the various heads—that is, glass and installation.

Q. That is, frequently you have only one charge; in other cases you have a partial separation of charges as between boxing, glass, freight, edging and installation, and in other cases you have them all detailed? Is that right—on this Exhibit "X"?

A. That is correct.

Q. And in each case you have given as full information as your records enable you to show?

A. I have. I notice on the credit for Studebaker, which was mentioned yesterday, the total amount of $5505.05, that it includes charges for replacements from Jacksonville, Florida, and from the Pacific Coast, as well as fourteen export replacements.

Q. What do you mean by export replacements?

A. Replacements made outside of the United States.

Q. Now, coming back once more to Exhibit "BB", and particularly to that portion of your former testimony as to which you were cross-examined, commencing at the foot of page 1203 of the manuscript record. I understand there that in order to get the warehouse selling expenses properly chargeable to Duplate you started with the total ware-[fol. 934] house sales of plate glass. Is that right?

A. That is true.

Q. And that total sales of plate glass and Duplate for the year 1928 amounted to $24,006,602.81. Is that correct?

A. That is correct.

Q. And those total sales called plate glass included Duplate sales amounting to $888,987.30. Is that correct?

A. That is correct.

Q. And your total warehouse expense for selling the total plate glass item in that year amounted to $2,679,908.13. Is that correct?

A. That is correct.

Q. So you then apportioned the selling expense between plate glass and Duplate in the proportion which the warehouse sales of plate glass bore to warehouse sales of Duplate. Is that correct?

A. That is correct.

Q. State whether or not in your opinion it was more proper to get your warehouse selling expense of Duplate in this way than to include in the warehouse sales all these other items other than glass, such as paint, lacquers, putty, and numerous other items?

Mr. O'Shea: Objected to on the ground it calls for a conclusion.

Mr. Christy: He is an accountant, Mr. Examiner. I think I have a right to ask that question.

The Master: Objection overruled. Exception noted to plaintiff.

A. I think it was logical to arrive at it in the manner in which we did, with the exception that if anything the proportion of expense of selling glass which included Duplate should have been higher than the percentage shown in that [fol. 935] method—than it did show—for the reason that Duplate was not a standard article on the market as plate glass is, and more effort would be devoted to the sale of Duplate per foot than to plate glass.

Q. Then your computation of warehouse selling expense of Duplate was, in fact, a very conservative one? Is that what you mean?

A. I would say it was.

By Mr. Smith:

Q. Mr. McHenry, in reply to a question of Mr. O'Shea's in cross-examination, I understood you to say that the books of the Pittsburgh Plate Glass Company showed that the warehouses made a profit in 1928 and other years. Did you so testify?

A. I did not. I said I didn't know what the profit of the warehouses or loss would be until I would consult the records.

Q. If it be the fact that the books show that the warehouses made a profit in any of the years of the accounting period, will you please tell the Master whether that profit was separated as between the profit on plate glass and the profit on Duplate?

A. It was not separated.

Q. In other words, if there be a profit on glass, it includes both the plate glass and the Duplate. Is that right?

A. It does.

Q. And take the matter of profits as between, let us say, paint and brushes; are those separated and segregated on the books?

A. They are separated as a paint item only—the brushes are included.

Q. The paint item includes the brushes?

A. Yes.

Q. So you cannot tell from your books how much profit you made on the brushes as distinguished from the paint, [fol. 936] any more than you could tell how much you made on the Duplate as distinguished from the ordinary plate glass?

A. No, we could not, and in with the plate glass sales is included the Easyset Store Construction.

By Mr. Christy:

Q. Which is composed largely of plate glass?

A. Yes, that is the reason for including it under that heading. It is not possible for us to run a profit and loss account for all the items sold in a warehouse, so we confine them to as few departments as possible in order to save clerical work.

By Mr. Smith:

Q. But the result shows the profit or loss to the company in any given year?

A. Yes, it does.

Q. Now, in your testimony here in repeated instances you have used the expression "cost of sales." By that do you mean the selling cost to sell a certain feetage of glass, or does that expression as you use it include the cost of the material as well as the selling cost?

A. It includes the cost of preparing glass for delivery, delivery expense and all expense in connection with that sale.

Q. It includes the production cost of the glass?

A. It does.

Q. It really means, instead of cost of sale, as Mr. Christy properly suggests, it means the cost of the glass sold, is what that expression comes to?

A. Yes, it attaches to it all the expense in connection with the sales.

Q. And with the production of the article?

A. Yes.

Q. Now, there was some testimony you gave today in which you told Mr. O'Shea that the earnings account for [fol. 937] 1928 showed commissions earned in the sum of

$45,699.47, and for the same year showed expenses of $17,883.86. I didn't understand what account that was. What account was it?

A. That account is the commissions earned on the sales made by general office only.

Q. Sales of what?

A. Sales of Duplate. We earned the commission of forty-five thousand odd dollars. Our Duplate expense account shows seventeen thousand dollars plus, to which would have to be added the general office expense and the salesmen's salaries and expenses. That was not allocated to this expense account during that period. We were just starting in to sell Duplate, and the division of the salaries and expense was overlooked.

Q. So that to do what Mr. O'Shea did, subtract the $17,883.86 from the $45,699.47, and to get what he termed a profit of $27,515.61, I understand would be misleading?

A. It would. It is only taking half of the horse.

Q. Mr. Hickman calls my attention to a matter we want to be certain is correct on this record. For the year 1928, in answer to Mr. O'Shea, you gave t[illegible]al sales, warehouses, $50,015,982.52. You gave total warehouse expense for 1928 of $8,191,352.08. I assume you didn't mean to give the impression that you subtracted the latter figure from the fifty million dollar figure, showing a net profit something like forty-two million dollars?

A. Oh, no. You have to include in there the cost of the goods sold in order to get your fifty million dollars' sales.

Q. The item of warehouse expense, $8,191,352.08. What was that in general?

A. That was the salesmen's expense, office expense.

Q. Advertising?

[fol. 938] A. Advertising. It does not include the cost of the glass or, in this instance, the paint.

Q. And does the same explanation apply to the figures that you gave for total warehouse sales for 1929 and for the first five months of 1930, and for the corresponding expenses of those years?

A. It does.

Q. Have you prepared a new Defendants' Exhibit "II" to correct the error which appeared on the Exhibit "II"

already offered with respect to the item entitled "Salvaged or Reclaimed Stock Taken into Possession"?

A. I have.

(Statement marked Defendants' Supplemental Exhibit "II.")

Q. Mr. McHenry, I show you this document which has been marked Defendants' Supplemental Exhibit "II," and ask you if that is the new exhibit that you have prepared and have just mentioned.

A. It is.

Q. As I understand it, the totals at the end of this exhibit are not changed in Supplemental Exhibit "II"?

A. They are not.

Q. But the item entitled "Salvaged or Reclaimed Stock Taken into Possession," in the old exhibit giving three amounts aggregating $151,435.65, has been changed to include under the head "Salvaged or Reclaimed Stock taken into Possession" in Supplemental Exhibit "II" the following three amounts: for 1928, $49,401.77; for 1929, $104,127.02; for 1930, $8,707.04, making a total of $162,235.83. Is that correct?

A. That is correct.

Q. As I understood your explanation, these items making up this $162,235.83 were included in your work sheets but by a typographical error were omitted from the original Defendants' Exhibit "II."

[fol. 939] A. That is correct.

Q. And these amounts aggregating $151,435.65, which appeared on the original Defendants' Exhibit "II" under the head "Salvaged or Reclaimed Stock taken into Possession," appear in the same amounts exactly in the Supplemental Exhibit "II" under the heading "Adjustments Resulting from Revaluations of Opening and Closing Inventories Based on Adjusted Cost."

A. That is correct.

Mr. Smith: We offer in evidence Defendants' Supplemental Exhibit "II."

Mr. O'Shea: I will not object to that provided that my cross-examination on Defendants' Master's Exhibit "II" shall be taken as applying to such matters as are appropriate to Defendants' Supplemental Exhibit "II."

Mr. Smith: You mean the cross-examination you have already made?

Mr. O'Shea: Yes.

The Master: That may be understood.

Recross-examination.

By Mr. O'Shea:

Q. Mr. McHenry, without going into and not meaning to ask you to check up the figures, will you please state from which one of Plaintiff's Exhibits 9, 9-A or 10, you would take the item under the heading "Salvaged or Reclaimed Stock taken into Possession," and totaling $162,235.83?

A. That was taken from Plaintiff's Exhibit No. 10.

Q. And it is your idea, as I understand it, that the Exhibits 9, 9-A and 10 eliminate from the cost of sales the full amount of $162,235.83?

[fol. 940] A. That is my understanding, as it is so marked on the exhibit.

By Mr. Smith:

Q. Which exhibit?

A. Exhibit No. 10.

By Mr. O'Shea:

Q. And you did not trace through Exhibits 9 and 9-A to determine whether there were any offsets to that amount?

A. I did not. I accepted the Exhibit No. 10 as filed.

PHILIP F. DATZ, recalled on behalf of defendants.

Direct examination.

By Mr. Smith:

Q. Will you look at Defendants' Exhibit "U," Mr. Datz? You were cross-examined this morning by Mr. O'Shea on Defendants" Exhibit "U," and he called attention to two orders, one being General Order 2057 and the other being General Order 2311, in which it appeared there were some estimated amounts of glass, and I asked you to ex-

amine your records to determine whether there were any other items in Exhibit "U" except the two which Mr. O'Shea picked out which contained estimated amounts of glass. Have you examined your records?

A. Yes, sir.

Q. Are there any other items which contain estimated amounts excepting the two I have mentioned?

A. No, sir.

Q. Now, have you the material here in respect to this General Order 2057?

A. Yes, sir.

[fol. 941] Q. You found delivery orders for the plates of plate glass that were sold by the Pittsburgh Plate Glass Company under this order in part, did you?

A. Yes, sir.

Q. You found those delivery orders for how many plates?

A. For 3006 plates.

Q. That would be of thin plate glass?

A. That is correct.

Q. How many plates of Duplate were included in this order 2057?

A. The order originally stated 3000 Duplate, but the shipping record on the order shows 2970 Duplates shipped, and the order was considered complete.

Q. Now, in order to make 2970 sheets of Duplate, how many sheets of thin plate glass would be required?

A. 5940.

Q. That is just double the number of the Duplate sheets?

A. That is right.

Q. And of that 5940 plates of plate glass you found delivery slips for 3006 plates, leaving 2934 plates for which you found no delivery slips. Is that right?

A. That is correct.

Q. Why, if you know, were those delivery slips not there for these 2934 plates?

A. The delivery slips may have been included in with the lot that have been investigated, but in quite a few cases we find that the order number was not placed on the delivery slip by Works No. 1, Pittsburgh Plate Glass Company, so that we were unable to identify the glass as shown on some of these delivery slips.

Q. That is to say, if I understand you, there may be delivery slips for these very 2934 plates, but on account of

the delivery slips omitting the identifying number, you couldn't identify them as covering these plates. Is that correct?

[fol. 942] A. That is correct.

Q. Now, Mr. O'Shea brought out that with respect to these 2934 plates of plate glass you took an assumed size of glass bracket as representing those plates. Is that true?

A. We did not take an assumed bracket size. We took the size as shown on the other deliveries of glass.

Q. You mean on the same order?

A. On the same order.

Q. What did the order call for—what kind of Duplate sheets—for what purpose?

A. The order calls for a Fisher Body back light, Part No. A-7011, which is of a peculiar shape, requiring a piece of polished plate glass 12 by 32 bracket size.

Q. Inches?

A. Inches.

Q. And that would be the bracket size you would have to use for all of these body lights for an entire order?

A. Of this particular pattern, yes.

Q. And, therefore, you assumed that that was the bracket size that was used for the 2934 sheets?

A. That is correct.

Q. Now look at your General Order No. 2311. Have you the material here to show the details of that?

A. Yes, I have.

Q. What did that cover—that order?

A. The order, Fisher Body, G. O. 2311, calls for 4500 back lights, Part No. A-7011.

Q. Was that order filled by the shipment of 4500 lights?

A. The order was noted by the shipping department as being complete, shipping 4500 plates.

Q. And those 4500 lights of Duplate would involve correspondingly 9000 pieces of one-eighth inch plate glass?

A. That is correct.

[fol. 943] Q. Of those 9000 sheets of plate glass, how many delivery slips did you find?

A. We located delivery slips showing the order number G. O. 2311, totaling glass, polished plate, 5062 plates.

Q. Leaving 3938 plates for which you did not find delivery slips?

A. For which we didn't find delivery slips showing this particular order number.

Q. Does the same explanation you have given with respect to not finding identified delivery slips under General Order 2057 apply to not finding such slips in General Order 2311?

A. That is correct.

Q. Now, what bracket size of plate glass was used in making the lights under that order No. 2311?

A. 12 by 32 inch bracket.

Q. Was that the bracket size that was required to make those lights?

A. It was.

Q. And, therefore, have you applied that bracket size to the plates 3938 in number for which you failed to find delivery slips?

A. Yes, sir.

(No cross-examination.)

(Adjournment taken until Wednesday, November 30, 1932, at ten o'clock A. M.)

[fol. 944] Wednesday, November 30, 1932.

Met pursuant to adjournment.

Counsel present as before.

RICHARD B. TUCKER, a witness produced on behalf of the defendants, having been duly sworn, testified as follows:

Direct examination.

By Mr. Christy:

Q. Where do you reside, Mr. Tucker?

A. Pittsburgh.

Q. And what is your present occupation?

A. Manager of glass sales, Pittsburgh Plate Glass Company.

Q. How long an experience have you had in commercial dealings in plate glass, window glass and similar products?

A. Since 1907.

Q. State in a general way what your experience has covered, not in detail, but in outline.

A. From 1907 to 1924 I was in charge of the Building Supplies Corporation of Norfolk, Virginia, a glass jobbing house; from 1924 to 1929 I was manager of glass sales of the Standard Plate Glass Company, and later president; and since 1929 with the Pittsburgh Plate Glass Company in the glass sales division.

Q. Back in 1907 when you first became connected with this business and during the succeeding period of time, did you know of and were you familiar with the product of the Pressed Prism Plate Glass Company of Morgantown, West Virginia?

A. Yes, sir.

Q. Known, I believe, as prism plate glass?

[fol. 945] A. Yes, sir.

Q. Can you state in a general way about when that came on the market commercially?

A. It came on the market in approximately 1905. Up to that time the Pressed Prism Plate Glass Company originally had endeavored to press tiles in prism glass, which were leaded and made into units to fit openings over the transom of store windows. The lead work was very unsatisfactory, and they later through development of their manufacturing process developed a means of making the plate prism in large sheets by rolling and pressing, and later grinding and polishing, which met with a very ready acceptance in the construction market, it being a very much more serviceable product than the small tiles leaded together.

Q. That is, if I understand your answer, before the introduction of this plate prism product prism glass was made in small pressed tiles?

A. Yes, sir.

Q. Which had to be leaded individually together to make a window light?

A. Yes, sir.

Q. And this pressed prism plate product supplanted that earlier product? Is that correct?

A. Yes, sir.

Q. You said they had a ready market. What do you mean by that?

A. I mean by that it was so much more satisfactory a product for the purpose of transmission of light through the transoms of show windows to the rear of the store that

the architects accepted it and specified it for construction work.

Q. Was there anything that you might call sales resistance connected with the dealing in the product?

A. No, sir.

[fol. 946] Q. Were you also familiar at that time, meaning 1907 and immediately thereafter, with the product known as wire glass?

A. Yes, sir.

Q. Both rough wire glass and polished wire glass?

A. Yes, sir.

Q. What was the nature of the market for these products?

A. The nature of the market for those products was a very hearty approval, not only by the architectural profession but by the fire insurance underwriters.

Q. Wire glass is a fire retardant, I understand?

A. Yes, sir.

Q. That product, if I understand, consisted of a sheet of glass having embedded in its center a lattice work of steel wire. Is that correct?

A. That is correct.

Q. For what was this wire glass used?

A. Wire glass was used as in glazing of windows in such exposures that represented a fire hazard. The underwriters gave us a lower rate on windows glazed with wire glass, with automatic fuse links for self-closing, as if that exposure had been of solid masonry.

Q. Did the polished wire glass present the same advantages?

A. The same advantages, except with the additional advantage it could be used in office buildings where you needed the clear glass for lighting purposes.

Q. And it was extensively specified by architects and used in offices and hotel buildings?

A. To a very large extent.

Q. Was there anything you could call sales resistance in the marketing of wire glass?

A. No, there was no sales resistance in the utilization of wire glass because the difference in fire insurance rates established on buildings that were not glazed with wire glass, as opposed to those that were glazed, in hazardous expos-

[fol. 947] ures, was so great that it paid for itself in saving of insurance within a very short period of time.

(No cross-examination.)

RENEWAL OF MOTION FOR ORDER REQUIRING PLAINTIFF TO PRODUCE CERTAIN BOOKS AND RECORDS

Mr. Smith: If the Master please, counsel for the defendants renew the request heretofore made upon the Master to order the plaintiff either to produce before the Master or to permit defendants to examine its documents and records for the years 1927, 1928, 1929, 1930, 1931 and 1932 with reference to the cost of production of laminated glass and the other matters as heretofore set forth in the typewritten transcript of the evidence in this case, as contained on pages 948 to 954 of the transcript, for the reasons and for the purposes therein more fully set forth.

The Master: Have you any additional reasons other than those presented at that time, Mr. Smith?

Mr. Smith: I don't know of any additional reasons except that the course of the evidence I think has justified renewal of this because I am hopeful that you may take a different view of it, and I call your attention particularly to the fact that Mr. O'Shea, the counsel for the plaintiff, has declined to withdraw and, in other words, stands upon Plaintiff's Exhibit 27 in which there is this enormous claim of loss of profits. It seems to me we are in a little different position.

The Master: Have you anything to say, Mr. O'Shea?

Mr. O'Shea: I would just say it has already been passed on by the Master here and also by the Court, and permission to do what counsel for defendants asks has been declined.

[fol. 948] Mr. Smith: It has not been passed upon by the Court. The Court said he would not interrupt the hearings to determine this question, but he would determine it at the trial. I submit, Mr. Shrum, we are entitled to equality of treatment here. We are satisfied you will give us equality of treatment in deciding this case so far as the evidence is produced, but we submit you have not given us equality of treatment on this matter because on this important point

you are keeping out evidence which is most material in this case; whereas, in spite of the great hardship on the defendant to prove its costs which have been ordered on the record and no hardship to this plaintiff who is out of the laminated glass business, no trade secrets here, we are prevented, we think unjustly, from showing the real facts in the case.

The Master: The request of the defendants' counsel is for the present denied.

Exception noted to defendants.

C. L. McHenry, recalled on behalf of defendants.

Direct examination.

By Mr. Smith:

Q. What were the warehouse sales of glass for the year 1930 in feet? Do you have that?

A. Warehouse sales in 1930 for the year was 31,042,485 feet.

Q. What were they for the first five months of 1930?

A. The first five months were 15,362,116 feet.

Q. And, in addition to that, were there factory sales of glass that are not in the warehouse sales?

A. Yes, sir.

[fol. 949] Q. What were they for 1930—for the full year?

A. For the year 1930 the factory sales were 14,924,790 feet. In the first five months of 1930 the factory sales were 5,382,826 feet.

Q. So that when you combine those two approximately what proportion of the sales of the year were sold in the first five months? When I say "combine those two" I mean combine the warehouse sales and the factory sales.

A. Practically 45 per cent.

Q. In the first five months of the whole year's sales?

A. In the first five months the sales were approximately 45 per cent of the total sales for the year.

Q. 1930?

A. 1930.

(No cross-examination.)

Defendants rest.

Rebuttal Testimony

SIDNEY W. CAULFIELD, recalled on behalf of the plaintiff in rebuttal, testified as follows:

Direct examination.

By Mr. O'Shea:

Q. Mr. Caulfield, you were on the stand before in this proceeding before the Master?

A. I was.

Q. Did you receive from Mr. McHenry or Mr. Datz of the Pittsburgh Plate Glass Company a number of orders with the accompanying requisition slips showing the glass delivered from Pittsburgh Plate Glass Company to its Duplate department for the manufacture of laminated glass? [fol. 950] A. I received such orders and what are called delivery tickets similar to the orders and delivery tickets used in making up the Defendants' Exhibit "U," I believe.

Q. And when did you receive those?

A. On Monday, November 28th.

Q. Have you had a tabulation of those orders received on Monday, November 28th, made showing the cutting loss that was occasioned to the defendants in this case on those orders?

A. I have had a computation made of some of those orders. It was physically impossible to calculate them all.

Q. Will you produce that calculation with respect to some of those orders? As I understand it, when you say "some of those orders" you mean orders in addition to the orders tabulated in Defendants' Master's Exhibit "U"?

A. Yes.

Mr. O'Shea: Plaintiff offers in evidence the tabulation produced by the witness, and requests that the same be marked Plaintiff's Master's Exhibit No. 30.

Q. Mr. Caulfield, will you state the circumstances under which Plaintiff's Exhibit No. 30 was made up?

A. Yes. I received from Mr. Datz and Mr. McHenry the orders and the delivery tickets with explanation from them as to how they prepared their Exhibit "U". Following the same general principle, I had prepared under my supervision a tabulation of other orders in the same way, and

with one exception this schedule is calculated in the same manner as Schedule "U." I might add that I laid out the work for my assistants to help me on it and I directly supervised it.

Q. Now, taking up this Plaintiff's Master's Exhibit 30, what is that first column on that exhibit?

[fol. 951] A. The first column is a reference to our work sheets, so that if a check of these figures is ordered or desired, it will be a simple matter to make such a check.

Q. Then the second column is prepared in the same way as the corresponding column on Defendants' Exhibit "U"?

A. Yes, sir.

Q. And the same with the order number column?

A. Yes, sir.

Q. And the warehouse column?

A. Yes, sir.

Q. And the date of order column?

A. Yes, sir.

Q. And the final shipping date column?

A. Yes, sir.

Q. And the material quantity column?

A. Yes, sir.

Q. And the double column under the heading "Duplate ordered" and the sub-heading "Description" and "Pattern No."?

A. Yes.

Q. And the column "Plates shipped quantity" is on the same principle and plan as that same column in Defendants' Exhibit "U"?

A. Yes.

Q. And is the same true of the next column headed "Size shipped to customer"?

A. It is.

Q. And is the same true of the column headed "Bracket size billed to customer"?

A. It is.

Q. And is the same true of the column headed "Sq. ft. area per plate"?

A. Yes, sir.

Q. And is the same true of the "Quantity pol. plate glass used Plates"?

[fol. 952] A. Yes; with this notation that we have only included in here the plates for which we actually found de-

livery slips. There may have been others on which the order number was not shown which we could not identify, and those of course we did not take.

Q. And is the same true of the next column headed "Actual size pol. plate taken from stock"?

A. Yes, sir.

Q. And is the same true of the column headed "Bracket size pol. plate billed Duplate"?

A. Yes, sir.

Q. Now, what have you to say about the next column as to its identity with any column on Defendants' Exhibit "U"?

A. That is not figured in the same method as was used in figuring Defendants' Exhibit "U." In Defendants' Exhibit "U" the number of plates used was multiplied by the area of the bracket size billed to Duplate. In this exhibit we have taken the area of the block size or, as stated here, the actual size of polished plate taken from stock, and computed the area of the actual size and multiplied that by the number of plates.

Q. To get what?

A. To get the area of the glas actually used.

Q. Now, have you anything to say with respect to the next column on this Plaintiff's Exhibit 30, which is headed "Plate glass footage actually used," as compared with the similar column appearing on Defendants' Exhibit "U"?

A. In my last answer I was considering that column as well as the preceding one.

Q. They were both computed in the same way?

A. Yes. One is the unit area of each plate actually used; the other is the multiplication by the number of plates.

Q. Now, in your column headed "Cutting loss per plate" and the total, I notice there you have in some instances a [fol. 953] black figure and in other instances a red figure. Will you please state what is the difference between the black figures and the red figures?

A. The black figures shown in the second column from the right is the difference between the square foot area of the plate actually used and the square foot area per plate billed to the customer. I mean the ultimate customer rather than Duplate. For example, on the first line it is the difference between 4.1806 square feet, which is the area actually used, and 4.0833 square feet, which is the area billed

the customer, in this case Studebaker Corporation. The cutting loss, therefore, as here computed is .0973 per square foot. Multiplying that by the number of plates used gives the total area as shown in the last column on the right. With respect to those items where the red figure is shown, the customer has been billed for a larger size than was actually used. For example, the first red ink figure represents a shipment to Motor Products Company, wherein that corporation was billed for a bracket size 14 by 42, as shown by our identification mark "2B" shown at the left. This customer was billed for the bracket size 14 by 42, which is a unit area of 4.0833 square feet. The actual size of plate taken from stock as shown by the delivery ticket was 13 by 42; the total area actually used, 3.7917, which means that the customer, the Motor Products Company, was charged with .2916 feet more than was actually used, it being, as I understand, the custom of the Pittsburgh Glass Company to always bill to the next even inch. Similarly, on these last two columns on the right-hand side, where no cutting loss is shown, the customer has been billed for the same size as was actually taken from stock.

Q. And in such cases you simply put a black dash opposite that item under the heading "Cutting Loss." Is that correct?

A. Yes, sir.

[fol. 954] Q. Mr. Caulfield, referring now to Defendants' Exhibit "U," have you computed the cutting losses on the glass specified in that exhibit on the principle or plan of showing the cutting loss resulting from the quantity of polished plate glass used as related to the quantity of plate glass billed to the ultimate customer?

A. I have computed the area of the glass actually taken from stock in the same manner as I have explained on Plaintiff's Master's Exhibit 30, and computed the cutting loss in the same manner.

Q. And what is the result that you got in computing Defendants' Exhibit "U" on that principle?

A. I came to a percentage of 4.63 as the cutting loss on that principle. I would have to refer to my work sheets to give you the footage.

Q. Would you just give us the figures that you used in computing Defendants' Exhibit "U" on that principle, and for that purpose you may refer to your work sheets?

A. The total area of the footage actually used, computed on the actual size delivered from stock, total 1,175,278 square feet, and the cutting loss computed on that basis amounted to 54,512 square feet, which results in a percentage of 4.63 per cent.

Q. Just as a matter of clarification, on this Plaintiff's Master's Exhibit 30, I think it is the fourth item from the bottom of page 1, I notice an entry there under the last six headings entitled "No tickets." Will you please explain what that means and what effect it has, if any, on the general result of the computation on this exhibit.

A. We could identify no record of delivery against this particular order, but inasmuch as we had picked out that order to be one of those to be analyzed, we showed that portion of it and stated that we could identify no deliveries. [fol. 955] We have used the phrase "No tickets." I mean by that we could not identify any deliveries. We don't know what if any cutting loss there might have been on that order. There might have been a cutting loss; there might have been no cutting loss. I can't tell. Whatever it was it would be so small in quantity as to have relatively no effect on the total. I mean the total of all these pages.

Q. Well, has it any effect at all in view of the fact that your result is obtained by addition of the quantity column as compared to the plate glass footage actually used column?

A. It has no effect at all. It is just as though that item were not typed in at all.

Q. Now, with respect to that same exhibit, just what policy did you pursue in picking out the orders that you have entered in there? What were your instructions to your assistants with respect to the manner of picking out orders?

A. Mr. McHenry was advised some time during last week, with the consent of Mr. Christy, as I understand it, that we would ask for certain records of orders, and in particular we asked for all orders covering more than 500 plates of a given size. The reason for that was we wanted to get the large orders to show as big a volume of footage as possible. Mr. McHenry produced those orders and produced records or compilations in respect to twenty-five of them which he had had time to make himself in the same manner as Exhibit "U." We used those twenty-five and

picked out all the other orders over 3000 lights and started on those first. I believe we computed all the orders with more than 3000 lights of a given size unless we inadvertently overlooked one or two. When we finished that we went on those that were within two or three thousand. We didn't finish those. You will find a few that are less than 2000 lights, but that is where in our examination the infor-
[fol. 956] mation was so apparent that it was right there and we could get that without any extra effort.

Q. Now, Mr. Caulfield, have you prepared a tabulation showing a comparison of the details of the contested items eliminated from cost in Plaintiff's Exhibits 9 and 9-A, and as stated to be the elimination in those exhibits on Defendants' Supplemental Exhibit "II"?

A. I have prepared such a statement.

Q. Will you produce that statement?

A. Yes, I have it here.

Mr. O'Shea: Plaintiff offers in evidence this comparative statement, and asks to have it marked as Plaintiff's Master's Exhibit No. 31.

Q. Now, Mr. Caulfield, did I understand that Plaintiff's Exhibit 9-A and Defendants' Supplemental Exhibit "II" practically checked down to the item on there entitled "Edged Duplate stock rejections"? Is that correct?

A. They check in total down to there and including the item you have just mentioned.

Q. Then you have taken up the next item, entitled "Adjustments resulting from revaluation of opening and closing inventories, decreases"; you have put in the figure as appears on Plaintiff's Exhibits 9 and 9-A, to-wit, $151,435.65, under your heading of "Plaintiff's Exhibits 9 and 9-A Actual Figures," and the same figure is used on Exhibit "II." Is that correct?

A. That is correct on that item.

Q. Then in the next item, which is entitled "Increases," by which I understand you mean increases of cost. Is that correct?

A. That is correct.

Q. You have put the off-setting items used in Plaintiff's Exhibits 9 and 9-A?

A. That is right.

[fol. 957] Q. And you find no such off-setting items in Exhibit "II"?

A. That is right.

Q. And that is true generally throughout this exhibit, the red figures representing off-setting items to the black figures. Is that correct?

A. That is right.

Q. Now, then, passing down that exhibit to the heading, "Extraordinary Expense" and the heading, "Mellon Institute Fellowship," you find that both those items check in both the Plaintiff's Exhibits 9 and 9-A and Defendants' Supplemental Exhibit "II" with the exception of one cent, which presumably is some mistake in addition I suppose?

A. Yes, I should say so. The item of the Mellon Institute checks exactly, the difference of one cent presumably being a mathematical error under the heading, "Extraordinary Expense."

Q. The same is true under the heading entitled "Commissions to Pittsburgh Plate Glass Co."?

A. Yes, sir.

Q. In the "Experimental Expense" you find difference as between Plaintiff's Exhibits 9 and 9-A and Defendants' Supplemental Exhibit "II" to the extent of $872.64. Is that correct?

A. That is correct. I state there that the difference is not reconciled because while I have my work sheets of what is included in the $140,601.94, I do not know what Mr. McHenry included. I would like to add here that the following item, which also shows a difference and entitled "Triplex Suit and Legal Expense," may account for part of this difference. Some of the expenses may have been charged to different accounts by myself and Mr. McHenry in making up those two items. There is one item of $452 which might be transferred from one account to the other. We don't know just what the nature of the expense was. It was either one or the other heading.

[fol. 958] Q. Now, will you please explain generally the next item, which is headed "Manufacturing Cost of Returned Sales"?

A. That is taken from Exhibit 9-A.

Q. When you say "that is taken"—you see there are so many figures there. You had better specify figures so as to indicate what you mean by the word "that."

A. Those figures are taken from Exhibit 9-A.

Q. You mean all the figures are taken from Exhibit 9-A or only the figures referred to as having been taken from 9-A?

A. I should say all the figures in the first column are taken from 9-A and 9. The first item, $812,770.93, is the net credit given to customers, as adjusted by Lybrand in Schedule 9-A, and as shown on page 12 of that report, and also the adjusted figure shown on page 6 referred to yesterday. The next item of $181,490.10 is the total, Column "C," on page 15. The difference between the two represents the amount that was actually eliminated, namely, $631,280.83. That figure can also be computed through Exhibit 9. The difference shown under the same group we are talking about, the difference between our figures and Defendants', namely, $91,436.55——

Q. When you say "our figures and defendants'" you mean by that the difference between the figures shown on Plaintiff's Exhibits 9 and 9-A and Defendants' Exhibit "II"?

A. Yes, sir, that is what I referred to.

Q. Proceed with your answer.

A. The difference of $91,436.55 was, I believe, thoroughly covered by the witness Mr. McHenry yesterday. It represents the total of the returns subsequent to June 1, 1930, in the amount of approximately $83,000, as shown by Defendants' Exhibit "W," and plus an amount shown on [fol. 959] Exhibit 9-A of $7875.13, which is the difference between the return figures as used by Lybrand, Ross Brothers & Montgomery in making up their summary and the $820,646.06, which were the original book figures before the adjustment referred to.

Q. Am I to understand then that in effect your last answer is that there is a reconciliation between the figures on Plaintiff's Exhibits 9 and 9-A and Defendants' Exhibit "II," so that they, in your judgment, even up?

A. Yes. I believe that my recollection of Mr. McHenry's testimony is right. I believe he placed on the record yesterday a reconciliation that shows what the difference amounts to and what it covers.

Q. Now the next item, "Difference in Sales and Costs as per page 12 of Exhibit 9-A." Will you please explain that a little more fully on the record?

A. In making up Exhibits 9 and 9-A and translating those to terms of profit on profit-making sales and losses

on loss incurring sales, as computed by Lybrand, Ross Brothers and Montgomery, several slight differences were noted between the figures which a re-examination of the Duplate books showed and their original books. In total those amounted to $3354.57 over the entire period, and are commented on by Lybrand in Exhibit 9-A and particularly are listed as a deduction on page 12. I have, therefore, in this Exhibit 31 tied in exactly with the figures shown on Plaintiff's Exhibit 9-A, as shown by page 12 and page 15.

Q. Mr. Caulfield, have you computed in tabulation form a statement showing profit making sales and loss incurring sales, using the actual glass cost of raw polished plate glass?

A. I have computed such a tabulation showing the profits and losses on sales of that characterization, and using as a base glass cost the manufacturing and administrative cost in manufacturing the glass, plus allowance for interest on [fol. 960] the investment, and eliminating from cost the same items that are eliminated in Plaintiff's Master's Exhibits 9 and 9-A. In other words, I have followed those two exhibits, substituting a different glass cost.

Q. Will you produce that tabulation?

Mr. Smith: Of course, this is not rebuttal, and we want to offer an objection at the proper time when the offer is made.

Mr. O'Shea: Plaintiff offers in evidence the tabulation produced by the witness, and asks to have it marked in evidence as Plaintiff's Exhibit 32.

Mr. Smith: Objected to, first, as generally incompetent and irrelevant, and second as clearly not being rebuttal. This matter, of course, if the Master please, was part of the plaintiff's case in chief, and if we are to follow this procedure, then we shall have the right to answer that and they reply, and so on ad infinitum.

Mr. Christy: If you will remember, we took that objection at the time the plaintiff closed their case.

Mr. Smith: In other words, Mr. Shrum, we will never get to the end of this case. This is the third time the plaintiff has reopened the case.

Mr. O'Shea: Let us see if we have reopened the case, or done anything we haven't a perfect right to do. In the midst of the plaintiff's case, just before the closing of the plaintiff's prima facie case, there was a request made on

the part of the plaintiff that the defendant furnish the Master information with respect to its actual glass costs. The Master ordered that that information be submitted. Counsel for the defendant took an exception to that and [fol. 961] went to the Court. The Court said that such information should be submitted. Now, the whole argument on that was that the plaintiff would claim that the defendant was only entitled to charge its actual cost as distinguished from the so-called market price of that raw glass. The conclusion from that was that there would have to be a recomputation of the profits and losses. There would be no purpose in having the defendants' actual costs put in this case unless there were a recomputation of the profits and losses based on those costs. Now, at the time that the defendants' report showing the actual costs of their glass was put in the record here on page 908 there was a discussion, and I was asked just what my claim would be, and I stated at that time that my claim would be that the allowance that the defendant would be permitted to have in this case for raw glass would be its manufacturing and administrative cost of that raw glass plus an allowance for interest on investment. What point are we at here now? It is just this: that your Honor must have before you a recomputation, or else you will have to do the work yourself. The facts are all in the record; the raw glass, manufacturing and administrative cost, the interest on investment and the other items that appear on page 908 of the record, as claimed by the defendants. Your Honor has got to have a recomputation. You have either got to do it yourself or you have to direct one of the parties to do it. Now that is what I have done here—simply to recompute on our theory of the cost of that raw glass what the net result will be. It may be checked by anyone who wants to. Moreover, I predict now, and I have never been in an accounting case in my life where it was not necessary after the law of [fol. 962] the case had been established by the Master—at that point when he establishes the law of the case there will have to be a recomputation. Your Honor may allow them items we have excepted to; your Honor may disallow some of those items. If you do, you have to recompute. You have to take your pencil and paper and sit down and recompute. It is going to be an arduous thing for the Master to do, and I assume what the Master will do will be

to either call in an accountant to help him or ask both parties to come in and recompute it. That is what I am doing here. It is not a reopening of the case. The case was there, and the case is there. It is simply a recomputation based on the facts in this record. I am putting it in through this witness simply for the reason that he has tabulating machines and one thing and another which I haven't got and you haven't got.

Mr. Smith: If the Master please, the witness has just finished saying this exhibit was prepared on a different basis than something heretofore offered.

Mr. O'Shea: He said no such thing, if I may interrupt.

Mr. Smith: I think he did. I understand this exhibit is prepared on a different basis of computation than the computation already submitted by the other side. If the plaintiff by way of brief wants to file with the Master any argument he pleases, he has the right to do that and we should not object. What we object to, Mr. Shrum, is to now offer in evidence this exhibit. This will go in not as something to help you, but it will go in as evidence in the case, and the case has been closed twice by this plaintiff. I submit [fol. 963] to you this is highly improper and should not be offered as evidence. If they want to file that little book with you as an argument of theirs, something they say will help you, let them file it, but it ought not to be offered as evidence in the case.

Mr. O'Shea: It ought to go up to the Court with the Master's report, and I assume it will, because the practice in these proceedings is not only to send up the specific exhibits in the case but all other material that was laid before the Master.

Mr. Smith: We certainly object to the introduction in evidence of something that is not evidence unless the plaintiff is to be allowed again to begin this case.

Mr. Christy: I call the attention of the Master to the fact this was all definitely put on record at page 939 of the record and we protested. There is a colloquy commencing at page 935 and continuing through page 939. This exact subject was raised at that time. We objected to it. Our objection was overruled, and we gave notice that because we did not think that the plaintiff had made an adequate presentation of its case that we would object to that being done in rebuttal. That is just exactly what has happened, and now they are offering it in evidence in rebuttal.

Mr. O'Shea: I call your Honor's attention to my statement when I was asked what my claim would be. I stated: "If I am now asked what I shall claim as the cost of glass used by the Pittsburgh Plate Glass Company in the manufacture of infringing sales, which I now designate and will refer to as Duplate, I shall claim that as a matter of law the Master must use the figures appearing on the 'State-[fol. 964] ment of Cost of Thin Polished Plate Glass for the Years 1928, 1929 and 1st Five Months of 1930,' as follows: Manufacturing and Administration, year 1928, .15590; plus 'Interest on Investment 6%,' .02553."

The Master: From what page do you read?

Mr. O'Shea: I am reading now from pages 937 to 938, and I have concluded my statement by stating that I respectfully submit that all of that statement I have just made is indicated by the accounts as filed and the exceptions which have been filed thereto.

Mr. Smith: And he begins that statement by saying, "Plaintiff rests, with a reservation, as I stated this morning, that I intend to put in, by way of brief or otherwise, a calculation which has to be made on these records." And now we are confronted with this document offered in evidence in this case.

The Master: We will take an adjournment until after lunch. I would like to consider both the arguments counsel put in to which you have referred this morning and also this exhibit. I will make a ruling after lunch.

(Recess taken until two o'clock P. M.)

Afternoon Session

The Master: Plaintiff's request to have Plaintiff's Master's Exhibit No. 32 received into evidence subject to the defendants' objection is denied, with leave to the plaintiff to submit his brief with this or such other computations as he believes will be of assistance to the Master in the disposition of this case.

[fol. 965] (Exception noted to plaintiff.)

Mr. O'Shea: May I ask to have the document produced by the witness which the Master has just refused to receive

in evidence marked for identification as Plaintiff's Master's Exhibit No. 32?

The Master: It may be so marked.

(Statement marked Plaintiff's Master's Exhibit No. 32 for identification.)

Mr. O'Shea: In view of the Master's ruling with respect to Plaintiff's Master's Exhibit 32 marked for identification, plaintiff is proceeding on the theory that in view of the fact that it was refused in evidence and only marked for identification, plaintiff may not, therefore, ask the witness to further explain that exhibit. Is that correct?

The Master: That is correct.

Mr. Smith: Do I understand, Mr. Shrum, that the witness's testimony with respect to Exhibit 32 remains in the record—what Mr. Caulfield has said about that?

Mr. O'Shea: All he testified was he made a computation, and here it is.

(Testimony of Witness Caulfield read by reporter.)

Mr. Smith: I submit that testimony, which amounts to sworn evidence, should not be in the record. Our examination on this exhibit would be very brief, but it is a lengthy exhibit, we have not had a chance to study it, and if it is going to be submitted to you as a brief and Mr. Caulfield be permitted to swear it is so prepared, I think we should have a right to ask him a few questions.

[fol. 966] Mr. O'Shea: I merely mean my mouth is closed in asking him to further explain it. If the defendants wish to ask him anything about anything that is in this record, either marked for identification or anything else, I think we will have to pass on those questions as they come up.

The Master: That is correct.

Mr. O'Shea: I close my case in rebuttal.

SIDNEY W. CAULFIELD, resumes the stand.

Cross-examination.

By Mr. Smith:

Q. Mr. Caulfield, have you before you a copy of Plaintiff's Exhibit 30?

A. Yes.

Q. Will you look at the first line on page 1, headed to the left, "Studebaker Corporation"? Now, coming over to the sixth column from the right-hand margin, being headed "Actual size pol. plate", and so forth—do you see that column?

A. Yes.

Q. In this instance that size is 14 inches by 43 inches?

A. Yes, sir.

Q. Now, the next preceding column to the left shows there were 2500 plates in that order, does it not?

A. Plates of what, Mr. Smith.

Q. Polished plate glass.

A. Plates of polished plate glass, yes, sir, of that size.

Q. And you multiplied to get the area of each of those plates 14 inches by 43 inches, getting in square feet 4.1806, which latter figure is shown in the fourth column from the right-hand margin. Is that right?

[fol. 967] A. A multiplication is made. I used a table that is prepared for that purpose by the Pittsburgh Plate Glass Company.

Q. I mean that is the effect of it?

A. That is what it is, yes.

Q. And then you took your 2500 plates at 4.1806 square feet each, and arrived at the result of 10,452 square feet shown in the third column from the right-hand margin?

A. Yes, sir.

Q. Now, to get the cutting loss per plate, which is in this instance .0973, shown in the second column from the right-hand margin, you subtracted the figure 4.0833, which is shown in the eighth column from the right-hand margin, from the figure 4.1806 shown in the fourth column from the right-hand margin, leaving a difference of .0973 shown in the second column from the right-hand margin?

A. Yes, sir.

Q. And the last mentioned figure is a decimal representing square feet?

A. You refer to the last figure you mentioned?

Q. Yes, .0973.

A. That is a decimal representing square feet.

Q. In other words, it is 9/100ths plus of a square foot. Is that right?

A. That is right.

Q. Now, the result of that was to deprive the Duplate Corporation of the cost of each of those pieces of plate glass, which at the bracket size was 14 x 44 feet, and substitute for them 14 x 43 square feet, was it not?

A. The effect of that was to show the cutting loss calculated on the size actually used rather than the size which Pittsburgh Plate Glass Company billed Duplate. The size Pittsburgh Plate Glass Company billed Duplate is shown in the fifth column, namely, 14 x 44. Had this schedule been computed on the basis of what was billed to Duplate, [fol. 968] the area in the fourth column, or what would correspond to the fourth column, would be 4.2778 and the cutting loss would have been the difference between that and 4.0833 shown in the eighth column from the right.

Q. Which would have been what?

A. Which would have been a cutting loss of .1945, per light, such loss being based on what was billed to Duplate rather than what was actually taken from stock and shipped to Duplate.

Q. In other words, in this particular instance, in round figures the cutting loss would have been twice as great on the last theory than on the theory shown in this exhibit?

A. Yes.

Q. And you have done that in spite of the testimony in this case that it is the universal custom in the glass trade to sell glass by even brackets?

A. I did that under instruction of plaintiff's counsel to use the area of the glass actually used.

Q. But in point of fact the bracket size for which in the trade generally a customer of a glass company would have been charged, where the actual size was 14 x 43, would have been 14 x 44 because there is no bracket 14 x 43. Isn't that true?

A. I don't know that is the custom in the trade. In fact, I believe the reverse is true. We have bought glass to the uneven inch, namely, received a sheet 14 x 43 and were billed for 14 x 43. In fact, that is the principle the foreign glass manufacturers used, and I refer particularly to Pilkington & Company of Great Britain, who ship and bill to the uneven inch as well as the even inch. I believe it is the practice of Pittsburgh only to bill the even inch.

Q. This case where you bought glass to an uneven inch like that, was that bought from a foreign producer?

[fol. 969] A. Yes.

Q. Have you ever bought glass in substantial quantities from an American producer who has billed you for glass other than in even brackets?

A. Not in any substantial quantities except in certain sizes.

Q. Do you mean a size below a foot, or something like that?

A. I would say that would be the only case where it was in any sizable volume. There may have been a few isolated cases. If they have stock on hand, they sometimes do.

Q. You don't deny, Mr. Caulfield, that it is the practice in the United States of America, not only of the Pittsburgh Plate Glass Company but generally in the trade, to sell glass at these even figured brackets, do you?

A. No.

Q. And you have used that method throughout this exhibit, have you not?

A. I have.

Q. Now, let me call your attention to the item on this page, the name of the customer being Motor Products Corporation. Do you see that one?

A. Which one?

Q. 7B, I think it is.

A. Yes, I see 7B.

Q. Now, in that case instead of figuring a cutting loss, you figured a cutting profit, did you not?

A. Yes, sir.

Q. And may I ask in this right-hand column, the one nearest the right-hand margin, are those figures given in dollars or in square feet?

A. Those are square feet.

Q. So in that case you have figured a cutting profit of 2,333 square feet?

[fol. 970] A. Yes, sir.

Q. The size shipped to the customer in that instance, as shown by the tenth column from the right-hand margin, was in inches 12-13/32 x 41?

A. Yes, sir.

Q. In the next column to the right—that is, the ninth column from the right—you show the bracket size billed to the customer in that case as 14 inches by 42 inches?

A. Yes, sir.

Q. In the fifth column from the right-hand margin of this exhibit you show the bracket size of the polished plate glass

in this order billed by the Pittsburgh Plate Glass Company to the Duplate Corporation as being 14 x 42 inches, do you not?

A. That is correct.

Q. If you had figured the area as billed to the customer at 14 x 42 inches, you would have shown no cutting loss in that case?

A. We would have shown no loss and no profit. It would have been a blank item, as are some of those underneath.

Q. But in order to show a red ink figure you took not what was billed to the customer but the area of the actual size of polished plate taken from stock, which as shown in the sixth column from the right is 13 x 42 inches, did you not?

A. I didn't have any purpose in showing——

Q. I am not asking for the purpose. I asked the fact. (Question read.)

A. The purpose was not to show either a black or red ink figure. What I did was to calculate the area based on the size of the sheet actually delivered, doing that under instructions of plaintiff's counsel.

Q. But you didn't take the size of the sheet actually delivered, did you?

A. Actually taken from stock, yes.

[fol. 971] Q. You said a moment ago actually delivered, and you didn't take that?

A. Delivered to Duplate, yes, sir—taken from stock.

Q. If you had taken the size shipped to the customer, you would have taken the size 12-13/32 x 41 inches, would you not?

A. I have taken——

Q. (Question read.)

A. That was the size shipped to the customer.

Q. And you didn't take that?

A. No.

Q. And you didn't take the size that was billed to the customer, 14 x 42 inches.

A. No.

Q. Instead of that you took the size 13 x 42 inches, which was the actual size taken from stock?

A. That is correct.

Q. And you know there is no bracket 13 x 42 inches, don't you?

A. I think my previous answers have covered that. There is no billing in this country, or it is not the practice of the Pittsburgh Plate Glass Company to bill such a size, but I have taken the area as actually taken from stock and shipped to Duplate.

Q. Although under the custom of the trade in this country, which you do not deny, it was obligatory on Duplate to pay for a sheet of glass 14 x 42 inches because that was the next bracket size, you have substituted a plate 13 x 42 inches, being the actual size taken from stock. Is that the English of it?

A. I think so.

Q. And the result of that is to show what you say is a profit in the cutting of plate glass?

A. Yes.

Q. And that explanation applies to all your red ink figures on this schedule, does it not?

[fol. 972] A. Sure.

Q. If you are dealing in actual sizes instead of bracket sizes, why didn't you take the actual size of the polished plate taken from stock, being 13 x 42 inches, and compare that with the actual size shipped to the customer, being 12 13/32 x 41 inches, and thus show a cutting loss?

A. Because I am considering here what the delivery tickets show, namely, that glass was delivered to what is called on those tickets the laminated department from another department of the Pittsburgh Plate Glass Company, and I am considering Pittsburgh Plate Glass Company and Duplate as being a single entity or synonymous term, and I am taking the final area for which Duplate or Pittsburgh Plate Glass or both, if they are considered as an entity, received from its customer, namely, Motor Products, to-wit, 14 x 42, and an area of 4.0833 for which Motor Products paid Duplate, and I am taking the area of the glass actually used by Duplate or Pittsburgh Plate Glass Company.

Q. Now, the next bracket size to the size shipped to the customer, which size shipped in this illustration was 12 13/32 x 41 inches, the next bracket size to that is 14 x 42 inches, is it not?

A. That is right.

Q. And that you took in making this calculation?

A. Yes, sir.

Q. But when it comes to allowing the Duplate Corporation for the price which, under the custom of the trade, it had to pay, you declined to take the bracket size, didn't you?

A. Yes, I took what was actually used on the theory Duplate and Pittsburgh Plate Glass Company are the same entity.

Q. So by taking the bracket size with respect to the shipment to the customer and not taking the bracket size with respect to the glass purchased by the Duplate Corporation, [fol. 973] you have actually figured out a cutting profit here, haven't you?

A. Yes.

Q. Do you think that is fair?

A. If Duplate were a separate corporation like Triplex had been, and had to pay for 14 x 42, it certainly would have been fair and the only method that could have been used. I have figured it this way, as I say, under instructions on the theory the two companies were synonymous, and we calculated on what was actually used.

Q. But the effect of what you have done is to deprive the Pittsburgh Plate Glass Company of the ordinary custom and right of the trade? In other words, to sell in these even inches brackets.

A. I deprived the Pittsburgh Plate Glass Company of a profit it makes with other customers.

Q. And the reason the Pittsburgh Plate Glass Company is entitled to that profit, if it be entitled to it, is because that is the custom of the trade?

A. Yes, if it be entitled to it, that is the reason.

Q. Do you think, as a matter of accounting, that is fair what you have done here?

A. From the standpoint of excluding all elements of profit, yes.

Q. I am asking you as a man, do you think that is fair what you have done in this exhibit in relation to either these black figures or red figures?

Mr. O'Shea: I object to that, if your Honor please.

Mr. Smith: I think that is a perfectly fair question. This is cross-examination.

Mr. O'Shea: This opinion testimony I do not think is proper.

The Master: He can give his opinion as an accountant if he wishes. I think he should.

[fol. 974] Q. Do you think that is fair?

A. The consensus of opinion among the accountants is that when a firm doing business for profit, which is the purpose of the organization, sells to another concern it should make a profit, but it is generally frowned upon for one department of a concern to show a profit on merchandise delivered to another department of the concern, and I believe you will find most accountants frown upon inter-departmental profits.

Q. However, your company is seeking heavy damages from the Pittsburgh Plate Glass Company for profits on plate glass, are you not?

Mr. O'Shea: If your Honor please, that is asking the witness an opinion as to the law of the case.

Mr. Christy: That is a perfectly legitimate cross-question. It would be allowed by any Court anywhere.

The Master: Answer the question.

A. As I understand this, the way the counsel for the plaintiff is setting up his claim is that he is not asking for any profit on glass, but he is asking that the glass be included in cost at the manufacturing and administrative cost, plus an allowance for interest on investment. That is my understanding of what is being attempted to be shown here.

Q. If you are seeking to charge the Pittsburgh Plate Glass Company for profits on the sales of plate glass, don't you think as an accountant that that seller should be treated like any other seller of that commodity?

A. I should think if we were seeking profits on plate glass, we would seek all the profits. That is only a layman's opinion of what patent law is. I know nothing about it.

[fol. 975] Q. I wasn't asking you about patent law. I was asking you your opinion as an accountant. I understand you are an accountant?

A. If I were seeking profits, I would seek all the profits.

Q. If by chance you were seeking all the profits, would you allow all the losses on the other side?

A. I would have to depend on what the law was. I wouldn't seek it. The attorney would have to.

Q. As an accountant you would just try to get all the profits and you would let the lawyer figure out the question of the losses?

A. I would let him figure out the law. I would make calculations as an accountant, leaving the law to him.

Q. We will pass that for the present. Now, have you Plaintiff's Exhibit 31 before you?

A. Yes.

Q. And will you please get Plaintiff's Exhibit 10 and have that before you?

A. Yes.

Q. I am looking at Plaintiff's Exhibit 31. Will you please do so, Mr. Caulfield?

A. Yes.

Q. As I understand that exhibit, it shows at the foot of the first column that has a heading on it, being "Plaintiff's Exhibits 9 and 9-A," clear down at the bottom the footing of $2,547,122.81.

A. Yes, sir.

Q. Which are the eliminations from the Duplate costs as set up by Exhibit 9-A prepared by Lybrand, Ross Brothers & Montgomery under instructions from Mr. O'Shea as to what they should include and what they should exclude?

A. Yes, as stated by them.

Q. Now, you compare that with the figure of eliminations in Defendants' Exhibit "II," which are shown in this Ex-
[fol. 976] hibit 31 in the second column at the foot as being $3,242,838.57. Is that right?

A. That is right.

Q. And the difference between those, if I understand this, is the amount shown in the third headed column which is $695,715.76.

A. That is right.

Q. Now, will you look at Plaintiff's Master's Exhibit No. 10? Have you got that?

A. Yes.

Q. Did you prepare that exhibit or was it prepared under your supervision?

A. As I recall the circumstances of the preparation and inclusion of Exhibit 10, during the testimony about a year ago Mr. O'Shea, counsel for the plaintiff, desired certain information in a handy form and asked Lybrand, Ross Brothers & Montgomery to type for his use a section of

a recapitulation that they had made up in order to tie in with the books of the company their eliminations, as shown by page 12 of Exhibit 9-A, and that this Exhibit 10 shows some of the eliminations only. It does not show certain other eliminations, nor does it show offsets of eliminations.

Q. You have been pretty active in this case? Did you see Plaintiff's Exhibit 10 before it was offered in evidence?

A. I think the circumstances surrounding it are that it was brought over and pasted together in the office where the testimony was being held at the time, and there was some errors even made in pasting, I believe. It was all done right in the office of Brown & Critchlow.

Q. Did you see this Exhibit 10 before it was offered in evidence? was the question.

A. Maybe ten minutes or so, yes.

Q. I notice the heading of Exhibit 10 reads as follows: "Duplate Corporation Recapitulation of Contested Items [fol. 977] Eliminated from Cost of Duplate Sales (stated in dollars)." Have I read it correctly?

A. Yes, sir.

Q. Did you take any exception to that heading when that exhibit was offered in evidence by your counsel in your presence?

A. Did I take any exception?

Mr. O'Shea: I don't know the purpose of this testimony, Mr. Master.

Mr. Smith: We will try to develop the purpose. This is cross-examination.

The Master: We will hear his answer.

A. I took no exception.

Q. If Exhibit 10 had been intended, as you now say, to show only a part of the contested items, that should have been included in the caption, should it not? I am asking you as an accountant.

A. Yes, the intention was to get on one certain sheet of paper this certain set of figures so the attorneys would not have to go through the twenty-nine volumes of Exhibit 9 in questioning and cross-examination, and this was typed over night from the work papers of Lybrand, Ross Brothers & Montgomery, which had this title, and which original work papers contained two other sheets, one showing certain items of cost that were eliminated that are not in here, but

which are in Exhibit 9 and also in Defendants' Supplemental Exhibit "II." There was another sheet showing certain contra items. These were not typed and added to the exhibit because the purpose of this exhibit was only to have an easy reference to certain figures on which the attorneys were then examining and cross-examining.

Q. Well, as a matter of fact, you didn't get it on one sheet, did you?

[fol. 978] A. No, we got the footage on one sheet and the dollars and cents on a second sheet.

Q. And you took two sheets and pasted it together? I mean somebody took two sheets and pasted them together?

A. Yes, I take that to be one sheet now.

Q. And, of course, if there had been other items which should have gone into this exhibit, there would have been no difficulty in pasting a little more on the sheet, would there?

A. No, no difficulty.

Q. Were you present when Mr. Sharpe testified in this case on this subject of Exhibit 10?

A. I believe so.

Q. You have been present at every hearing in this case throughout, have you not?

A. I think I have been present at every one. If I have missed *any*, it is only one; in fact, I don't believe I missed any.

Q. I read from Mr. Sharpe's testimony on pages 133 and 134 of the transcript of testimony as follows—this is the examination of Mr. Sharpe by plaintiff's counsel, Mr. O'Shea:

"Q. Mr. Sharpe, I show you two schedules, and ask you if you prepared those two schedules.

"A. Yes, sir.

"Q. Will you just explain briefly what those first two pages are?

"A. I had better take the second page first. The second page represents the number of feet of losses, as fully described in the headings on the columns, which totals are the same as appear on the Duplate Corporation's schedules 'J.' The memorandum at the bottom of page 2 represents the exact wording as it appeared on these Schedules 'J,' whereas the classification in the columns is according to our classification, which is contained on our details of contested

items eliminated from the account. Page 1 represents the cost of glass lost in process, as calculated by using the area in feet, as shown on page 2, times the average cost of pro-[fol. 979] duction, up to the respective stages each month, as shown on the Duplate Corporation Schedules 'J.' I might further add, the paragraph contained on page 17 of my report—This paragraph is headed 'Detail of Contested Items Eliminated from Cost of Duplate Sales'—has a short explanation of those items, in addition to what I have said."

"Mr. O'Shea: I now offer in evidence these two schedules referred to by the witness, and ask that they be marked as Plaintiff's Master's Exhibit No. 10."

In view of that testimony, do you still say that Exhibit No. 10 was prepared to show only a part of the contested items eliminated?

A. I think the language of the witness Sharpe is plain. He states that these eliminations are taken from company's Schedule "J," and he further states that the details, and I take the word "details" to mean all the entries, all the items of contested items eliminated, is shown in the report which he filed, namely, 9 or 9-A. He just uses the phrase "of my report," and he states further that that paragraph is entitled "Detail of Contested Items Eliminated from Cost of Duplate Sales." As an accountant, therefore, I would take the detail of contested items so shown on his report and consider these to be only some of those items as were taken from the Schedules "J" for some specific purpose.

Q. What is there in the testimony of Mr. Sharpe which I have just read to you that indicates in any way whatever that Schedule 10 is only a part of the contested items instead of all of them?

A. He uses the following sentence: "The second page represents the number of feet of losses, as fully described in the headings on the columns, which totals are the same [fol. 980] as appear on the Duplate Corporation's schedules 'J.'" Now. I can't see that he could take something that is not on Schedules "J" and say it came from Schedules "J."

Q. Now, Mr. Caulfield, the very next sentence to what you have read is this: "The memorandum at the bottom of page 2 represents the exact wording as it appeared on these

Schedules 'J.' whereas the classification in the columns is according to our classification, which is contained on our details of contested items eliminated from the account." In view of that statement, do you still say that Sharpe was only giving a partial list of contested items in Exhibit 10 instead of a complete list?

A. He says——

Q. Just answer the question. (Question read.)

A. Decidedly, and in the sentence you have just quoted he uses the phrase, "which is contained on our details of contested items eliminated from the account." The only place that I recollect that that phase is used—"Contested items eliminated from the account"—is in Schedules 9 and 9-A.

Q. Now, Mr. Caulfield, as a matter of fact, if you would desire to reconcile Exhibit 10, which shows total eliminated items of $2,033,449.78, with your Exhibits 9 and 9-A as set forth on Plaintiff's Exhibit 31, you would have to explain a difference of over half a million dollars, wouldn't you?

A. Yes.

Q. And I notice that the heading of Plaintiff's Exhibit 31 refers only to Exhibits 9 and 9-A. Why didn't you refer to Exhibit 10 in that heading?

A. Because 9 and 9-A is a complete report of the accounting and it is there that the phrase "Details of Contested Items Eliminated from Cost" is used, and it is there you will find all those details which tie in with the figures given by Lybrand on page 12 of 9-A, and which is tied in [fol. 981] direct to the books of Duplate Corporation. I therefore took Exhibits 9 and 9-A which give in detail all those contested items.

Q. The item which accounts for by far the greater part of the difference between Defendants' Exhibit "II" and Plaintiff's Exhibits 9 and 9-A, as set forth on your Plaintiff's Exhibit 31, is this item of manufacturing cost of returned sales, is it not?

A. No, sir. The Plaintiff's Exhibit 31 shows that there was eliminated from cost in Exhibits 9 and 9-A a total of $631,280.83. The Defendants' Supplemental Exhibit "II" shows that the amount eliminated was $722,717.38. The difference between the defendants' figure and the plaintiff's figure is, therefore, only $91,436.55, the nature of which was fully explained by Mr. McHenry, and, therefore, that

difference of approximately ninety-one thousand is not the major portion of the $695,000.

Q. Will you look at the column in Exhibit 31 entitled, "Defendants' Supplemental Exhibit 'II'?" Is it not a fact that the figures in that column correspond substantially with Exhibit 10, with certain additional items which the defendants say should be included in this accounting and which you, on your side, excluded?

A. The figures shown in the Defendants' Supplemental Exhibit "II" correspond in a great many cases with the figures shown on Exhibit 10 because Exhibit 10 reflects some of the details of contested items as shown by 9 and 9-A. The effect of the Defendants' Supplemental Exhibit "II" is to leave the impression that there has been excluded from cost a total of $3,242,838.57, whereas, actually Lybrand in tying their figures up with the books of Duplate have only excluded $2,547,122.81, which I believe that any accountant can very readily see from the examination of Lybrand's report 9-A.

[fol. 982] Q. If you will look at this column on Exhibit 31 entitled "Defendants' Supplemental Exhibit 'II,'" beginning at the top of that column and reading down several lines to and including the figures $151,435.65, does that not correspond exactly with the Plaintiff's Exhibit 10?

A. It corresponds exactly with Exhibits 10, 9 and 9-A.

Q. And the remaining figures in that column on Exhibit 31 are the figures which the defendants contend were improperly excluded in this cost accounting, are they not?

A. Do I understand that defendants do contend that?

Q. Yes.

A. If they contend that, I suppose that is what it means.

Q. In the column that I am referring to and headed "Defendants' Supplemental Exhibit II" on Exhibit 31, the next figure below the figure of $151,435.65 that I have just mentioned is the figure $60,334.61. That is a figure shown on Exhibit 10, is it not, in the second column from the right-hand edge of Exhibit 10?

A. That figure is shown in Exhibit 10, yes.

Q. The next figure below in this same column of Exhibit 31, being $162,235.83, is the figure shown at the foot of the fourth column from the right of Exhibit 10, is it not?

A. That figure is shown on Exhibit 10, yes.

Q. Now, in this same column of Plaintiff's Exhibit 31,

opposite the item "Extraordinary Expense," is a set of five figures, the first of which is $21,273.82 and the last of which is $20,351.45. Have I read that correctly?

A. Yes.

Q. Those figures are shown in Plaintiff's Exhibits 9 and 9-A, are they not?

[fol. 983] A. If I may make one correction to your statement, Mr. Smith. Those don't all come under the heading "Extraordinary Expense." The fact that that stands out there is a typographical error. Extraordinary expense is the first item of $21,273.82 in the column you refer to. As I recall it, it was special moving expense, and each following item refers to the verbiage on the left-hand side of the page.

Q. You mean just shift them down one line?

A. If you shift that word "Extraordinary Expense" to the right. I thought you misunderstood.

Q. The first item in this set of five figures I have just mentioned is "Mellon Institute Fellowship"?

A. The first item is "Extraordinary Expense."

Q. $21,273.83?

A. Yes.

Q. And the next item is "Mellon Institute Fellowship"?

A. Second, yes.

Q. And the next is "Commissions to Pittsburgh Plate Glass Co." $220,742.95, and the next is "Experimental Expense" $139,729.30, and the next is "Triplex Suit and Legal Expense" $20,351.45?

A. Yes, sir.

Q. And those same figures appear on Exhibit 9 or 9-A, do they not?

A. If you are referring to the column headed "Defendants' Supplemental Exhibit II."

Q. That is what I am referring to.

A. I have been unable to find them exactly in those amounts in statements 9 and 9-A, and yesterday, Mr. McHenry, I believe, failed to give the items which made them up. In general, I agree that most of those items are found there, but there are three small differences noted in connection with these items.

Q. What do the differences amount to in dollars, approximately?

[fol. 984] A. About $2700. The difference between $3500 and $872.

Q. Is it not—perhaps you don't know this—is it not the fact the next item in this same column of Exhibit 31, being $722,717.38, was obtained by taking the manufacturing cost of returned sales as claimed by the defendant, being a figure of approximately $840,000, and adding thereto returned sales since this account was made up of about $83,000, and subtracting the figure of $181,490.10, which is shown in the first column on Plaintiff's Exhibit 31, being a column that bears no heading?

A. That is not exactly correct, Mr. Smith.

Q. Let us have it correctly.

A. As explained by the witness Mr. McHenry yesterday, it is the total credits to customers of an amount of approximately $820,000, as shown by page 6 of Exhibit 9-A, plus the approximate amount of $83,000, returns shown by Defendants' Exhibit "W," less the stated amount of $181,490.10.

Q. And the last item in this same second headed column in Exhibit 31 that I have been talking about, $72,060.42, that is an item for allowances claimed since July 1, 1930, when the former accounting stopped. Is that right?

A. As shown by Exhibit "X."

Q. Is it not the fact that in accordance with the request to your company or its counsel, Mr. O'Shea, the Pittsburgh Plate Glass Company gave to you on Monday evening of this week, this being Wednesday afternoon, a set of orders and delivery slips covering shipments of one-eighth inch plate glass from the Pittsburgh Plate Glass Company to the Duplate Corporation during the accounting period, these orders aggregating two hundred and fifty in number approximately?

[fol. 985] A. He gave me such orders and delivery tickets which we used in making up our Plaintiff's Exhibit 30, I believe it is, and I should judge there are approximately two hundred and fifty in number. I didn't count them.

Q. And you took those orders and delivery tickets to the office of Lybrand, Ross Brothers & Montgomery in this city?

A. Yes, sir.

Q. And how many men worked on those exhibits on Monday night and yesterday?

A. Including Mr. Downey and myself, I believe it was seven on Monday night, and I believe it would have been

about four or five during yesterday, outside of stenographers.

Q. I am not speaking of stenographers. And were you with those men on Monday night while they were examining these orders and papers and selecting the ones that are reflected in the exhibits that you have produced here today?

A. Yes, sir.

Q. It is a fact that out of that two hundred and fifty orders your Exhibit No. 30 refers to only fifty numbers in all, or approximately fifty numbers?

A. I think it refers to more than that. I will tell you exactly.

Q. That is what I would like to know.

A. These aren't all in order. I will give you the highest reference. There were approximately ninety odd in number. In reference to that exhibit, the pages of which were typed as we finished the work, you will notice that the "B" numbers run up to 68-B. Those were orders that we selected. There were also twenty-five orders to be added to that which have the suffix "A", and those were twenty-five orders which Mr. Datz himself picked out for us and calculated for us, with the exception of the calculation of the area on the theory under which this is prepared. He [fol. 986] calculated the number of plates.

Q. Outside of these twenty-five Mr. Datz calculated for you, or selected, if that is what you mean, who selected the particular delivery orders that should be included in this Exhibit 30?

A. While I was there I did; while I wasn't there Mr. Downey did. I left the instructions to show the largest number of plates, therefore the heaviest volume of glass, so that we could get as broad a picture in the short time at our disposal as possible. My instructions from plaintiff's counsel were to take all orders if we could, which was physically impossible.

Q. How late did you stay there?

A. I left about eleven or eleven-thirty Monday night, and Mr. Downey joined me later at the hotel at twelve-thirty. Monday night it might have been eleven instead of eleven-thirty. I don't know the exact minute. Last night I checked out of the building at ten o'clock.

Q. And you say that you produced all of the orders that were as large or larger than three thousand plates each?

A. We endeavored to, yes. We may have slipped up on one or two and some smaller orders.

A. And then you examined some orders that were each between two thousand and three thousand plates, did you not?

A. Yes, that was done yesterday.

Q. You didn't complete that list of orders?

A. Didn't complete them.

Q. It seems though that in addition to that you did produce in this exhibit some orders running between one thousand and two thousand plates?

A. Yes, there were some instances as I explained in my direct testimony this morning.

[fol. 987] Redirect examination.

By Mr. O'Shea:

Q. Mr. Caulfield, on Plaintiff's Master's Exhibit 31, referring particularly there to the item in the column headed "Defendants' Supplemental Exhibit II," and being in the amount of $60,334.61, as I understand your testimony you say you took that from Plaintiff's Exhibit 10, did you not? I don't mean you took it. I mean it appears on Plaintiff's Exhibit 10, does it not?

A. Counsel asked me whether it was on Exhibit 10, and my answer was yes.

Q. And on Exhibit 10 it appears on the second page thereof in the second column from the right, does it not?

A. Yes.

Q. And that column is headed as follows: "Company's eliminated cost of rejects charged to process costs and later deducted (see contra)." As an accountant, what would you understand that phrase "see contra" to mean?

A. Contra means on the other side—that there is some item on the other side of the fence offsetting in whole or in part such an item. It is a reference to look somewhere else.

A. As an accountant, therefore, would you look some place else for what the contra entry might be?

A. Yes.

Q. Now, in order to make it clear, does the entry under the column "Defendants' Supplemental Exhibit II," and being entitled "Elimination of reduction in Cost of Duplate from General Expense—Advertising," and being in the amount of $1,263.47, appear any place on Plaintiff's Exhibit 10?

A. No, sir. The witness Mr. McHenry explained yesterday that that was compiled from Schedules 9.

[fol. 988] Q. When you say "Schedules 9" you mean?

A. Exhibit 9—the various months of Exhibit 9.

Q. So that in order to get that figure it was necessary for Mr. McHenry in making up his Exhibit "II" to consult Exhibit 9? Is that correct?

A. I don't know where else he could get that figure except from Exhibit 9.

Q. Does the item appearing in the second column on Plaintiff's Exhibit 31, entitled "Defendant's Supplemental Exhibit "II," and entitled under the subheading "Extraordinary Expense," and being in the amount of $21,273.82, and also the item in the same column and being entitled under the sub-heading "Mellon Institute Fellowship," in the amount of $11,250, as well as the item entitled under the sub-heading "Commissions to Pittsburgh Plate Glass Co.," being in the amount of $220,742.95, and the next item entitled under the sub-heading "Experimental Expense," and being in the amount of $139,729.30, and the next item under the sub-heading "Triplex Suit and Legal Expense," being in the amount of $20,351.45, appear any place on Plaintiff's Exhibit 10?

A. No, sir, they do not.

Q. Where in any records or exhibits in this accounting would you have to go in order to find out where those items and amounts are shown?

A. For four of them the only exhibit that I can recall would be the monthly statements under Exhibit 9, and the fifth item of experimental expense of $139,729.30 might be taken from Exhibit 9 or some compilation from Defendants' Exhibit "K," although this does not agree with the total of Exhibit "K."

Q. And that same thing is true of the next item entitled "Triplex Suit and Legal Expense," in the amount of $20,351.45?

A. I think Exhibit 9 is the only place that would be found.

[fol. 989] Q. At page 134 of the record before the Master, that being the place at which Exhibit 10 was introduced, I quote from the testimony of the witness Sharpe as follows: "I might further add, the paragraph contained on page 17 of my report—this paragraph is headed 'Detail of Contested Items Eliminated from Cost of Duplate Sales'—has a short explanation of those items, in addition to what I have said." As an accountant what do you understand is the reference to his report on page 17?

A. Why, my only understanding is that I would want to look at the report.

Q. What report do you think he is referring to there?

A. Either 9 or 9-A. I would like to see 9-A first. Exhibit 9-A, as I understand it, has an explanation of the detail of contested items to which Mr. Sharpe refers in the answer that you have quoted me. I see a paragraph so headed.

Q. And what page does that appear on?

A. Page 17.

Q. Have you any source of knowledge from which you are able to testify as to whether or not Duplate Corporation was obligated to pay for any particular size of bracket?

A. I don't know of any arrangement between Duplate and Pittsburgh Plate Glass Company, if I understand the question.

Q. Well, is there any doubt in your mind as to whether you understand the question or not?

Mr. Smith: Don't argue with your own witness. He understands it.

A. I think I understand the question, Mr. O'Shea. I don't know of any agreement one way or the other.

Mr. Smith: Mr. Shrum, I am not certain whether you entered in the record what your wish is with respect to [fol. 990] these exhibits we prepared here that are double numbers. I don't like to leave the record uncertain.

The Master: We will leave it as it is.

(Plaintiff rests in rebuttal.)

(Testimony closed.)

STATEMENT OF DEFENDANT IN RESPONSE TO MASTER'S ORDER

State of Pennsylvania,
County of Allegheny, ss:

Before me the undersigned, a notary public in and for said state and county, personally appeared Carroll L. McHenry, who having been duly sworn, deposes and says as follows:

I am of mature age and for the last eight years have been auditor of the Pittsburgh Plate Glass Company. Among my duties has been the auditing of the books of account of Duplate Corporation, the defendant in this case. I am familiar with the defendant's books and with its accounting methods. In accordance with the order of the Master, I have been requested by defendant's counsel to make a complete statement in debit and credit form of the accounts of the defendant for its entire manufacture and sale of its so-called "non-shatterable" glass down to June 1, 1930, at which latter date I am informed, the defendant discontinued the use of gelatin as a binder between the glass and the pyralin in its product.

The statement of account is attached hereto. Sheet 1 is a complete statement of the results of the business of the manufacture and sale of the defendant's product. Sheet 2 is a summation of the footage of the product manufactured [fols. 991 & 992] and sold. Sheets 3, 4 and 5 are respectfully analyses of the times in Sheet 1.

The account above set forth correctly exhibits the results of the defendant's operations as shown upon its books to the best of my knowledge and belief.

Carroll L. McHenry.

Sworn and subscribed to before me this seventeenth day of September, 1930. Howard O. Rogers, Notary Public. My commission expires March 6, 1931. (Seal.)

ACCOUNTING OF DUPLATE CORPORATION COVERING YEARS 1928-1929 AND 1930 UP TO DATE OF USING CASEIN A

		1928			1929			1930 TO 6/3		
Sales	1,081,147' 3"	2,156,147.42		2,301,771- 3	4,364,589.77		692,455- 8	1,128,486.58		
Less Returns	118,699' 0"	232,023.91		282,410-10	542,163.08		24,918- 9	46,429.07		
	962,448' 3"	1,924,123.51		2,019,360- 5	3,822,426.69		667,536-11	1,081,627.51		
Less Allow.& Adjts.		52,297.26			38,297.08			8,331.75		
NET SALES	962,448' 3"		1,871,826.25	2,019,360- 5		3,784,129.61	667,536-11			1,073,
COST OF SALES										
Glass		1,514,254.75			2,159,062.17			512,776.80		
Pyralin		445,333.80			706,855.53			182,.44.51		
Labor		245,985.00			320,075.54			73,082.83		
Supervision		27,282.73			63,121.89			16,960.60		
Office Expense-Factory		16,245.43			40,478.22			10,549.97		
Transportation		5,885.82			4,419.04			857.27		
Fuel, Power & Light		12,038.63			57,645.81			15,288.63		
Machinery Repairs		27,752.22			54,728.46			14,747.52		
Building "		18,240.78			4,728.69			1,375.98		
Supplies		25,259.74			44,579.46			14,951.73		
Miscellaneous Expense		40,014.31			100,340.74			49,815.41		
Water		335.30			2,140.38			1,545.06		
Templates		1,447.94			5,907.83			1,178.15		
Rubber Bags & Covers		22,107.85			29,030.59			6,018.16		
Hole Drilling		825.83			7,763.80					
Experimental Expense		49,973.69			52,471.79			38,425.60		
Land Rental		3,000.00			6,000.00			2,500.00		
Obsolescence		4,429.79			45,114.39					
Depreciation		5,759.35			47,150.59			24,351.50		
Amortization		-			26,624.63			11,820.90		
Insurance		1,551.72			1,478.40			771.25		
Truck License		12.00								
Taxes					11,598.41			4,000.00		
Loss in Storeroom Stock					16,568.08					
Extraordinary Expense					17,657.14			3,621.16		
Interest on Investment 6% on	$1,000,000.00	60,000.00			60,000.00			25,000.00		
		2,525,731.68			3,885,521.60			1,011,786.01		
Inventory Increase or Decrease	203,366.13			121,740.43			28,302.89			
Less Cost Transferred to Research & Specialty	10,015.57			4,823.34			19,287.97			
Less Cost Ind. Samples	2,835.21	216,216.91		4,540.91	112,376.18		4,300.30	4,714.52		
Manufacturing Cost		2,309,514.77			3,997,897.78			1,016,500.35		
ADMINISTRATIVE										
Traveling Expense	1.834.74			1,041.55			144.51			
Donations	1,875.00			7,500.00			1,875.00			
Miscellaneous	1,866.91			9,649.85			9,575.72			
Salaries	7,507.14	13,083.79		9,649.70	27,841.10		5,911.02	17,506.25		
SELLING EXPENSE										
Commission, etc.	85,746.55			105,300.18			29,648.55			
Packing & Shipping	22,449.67			58,895.71			19,859.69			
Advertising	2,984.21	111,180.43	2,433,778.99	29,917.51	194,113.40	4,219,852.28	11,955.71	61,481.95		1,0
			561,952.74			435,722.67				
OTHER INCOME										
Interest		1,404.19		1,873.27				344.25		
Profit on Machinery & Miscel.Sales		.52	1,404.71	477.20		1,396.07		88.95		
NET LOSS FOR PERIOD			560,548.03			434,326.60				

†In [illegible] Original Exhibit.

CORPORATION COVERING YEARS 1928-1929 AND 1930 UP TO DATE OF USING CASEIN ADHESIVE

SPECIALTY GLASS JANUARY & FEBRUARY 1930

1929			1930 TO 6/1			OLD PROCESS	NEW PROCESS	TOTAL		
2,301,771- 3	4,364,589.77		692,455- 8	1,128,186.58		5,912'	2,188'	8,100- 0	19,298.39	
282,410-10	542,163.08		24,918- 9	46,439.07				947- 9	1,857.50	
2,019,360- 5	5,822,426.69		667,536-11	1,081,621.51				7,152- 3	18,040.89	
	58,297.08			8,331.75					147.32	
2,019,360- 5		3,784,129.61	667,536-11		1,073,295.76			7,152- 3	17,893.57	
	2,159,062.17			512,776.80		4,048.32	1,740.06	5,788.38		
	706,855.53			182,444.51		3,666.36	635.50	4,301.86		
	320,075.54			73,082.83						
	63,121.89			16,983.60						
	40,478.22			10,549.97						
	4,419.04			857.27						
	57,645.81			15,288.63						
	54,728.46			14,747.52						
	4,728.69			1,375.98						
	44,579.46			14,951.73						
	100,340.74			49,815.41						
	2,140.38			1,545.06						
	5,907.83			1,178.15						
	29,030.59			6,018.16		5,842.59	2,552.88	8,395.47		
	7,763.80									
	52,471.79			38,425.60						
	6,000.00			2,500.00						
	45,114.39									
	47,130.59			24,351.50						
	26,624.63			11,820.90						
	1,478.40			771.25						
	11,598.41			4,000.00						
	16,568.08									
	17,657.14			3,621.16						
	60,000.00			25,000.00						
	3,885,521.60			1,011,786.01				18,485.71		
121,740.45			28,302.59			2,493.65	849.58-	1,649.05		
4,823.34			19,287.97				1,034.00			
4,540.91	112,376.18		4,300.30	4,714.32		891.90		1,929.90	18,204.86	
	3,997,897.78			1,016,500.33						
1,041.55			144.51							
7,500.00			1,875.00							
9,649.85			9,575.72							
9,649.70	27,841.10		5,911.02	17,506.25						
105,300.18			29,668.55							
58,895.71			19,859.69							
29,917.51	194,113.40	4,219,852.28	11,953.71	61,481.95	1,095,488.53					
		435,722.67†			22,192.77 †				311.29 †	
1,873.27				344.25						
477.20†		1,396.07		88.95	455.20					
		434,326.60 †			21,759.57 †				$ 311.29 †	

SUMMARY OF FOOTAGE

Sheet 2.

		1928	1929	1930	TOTAL
		962,448' 3"	2,019,360' 5"	667,536' 11"	3,649,345' 7"
Duplate Net Sales					
Duplate Inventory 5/31	40,942				
Less Edge Depr. Shrinkage	294				
	40,648				
Made in May New Process	4,197				
" " " Old "	86,451				
Less Sales Rejects in Stock	5,028				31,426'
					3,680,771' 7"
Sales Rejects on Sales Years 1928-1929 = .1189%					
Sales 1930 667,537' .1189% =	79,370' Rejects				
Returned to 5/31/30	24,918' 2"				
Credit for Rejects to be returned					54,451' 3"
					3,626,320' 4"
Duplate Net Footage					
Plus Samples Used					5,982'
SPECIALTY					
Sold January & February — Old Process	8,918'				
Inventory 2/25/30 " "	8,884'				9,556'
					3,641,858' 4"
TOTAL					

Sheet 5.

Sheet 3

DUPLATE CORPORATION

ANALYSIS OF EXPENSE ITEMS

	1928	1929	1930
Glass Used — Footage	3,722,601	5,287,582	1,620,151
Pyralin " "	2,758,302	3,198,639	954,474
Pyralin — Sheets	546,827	628,569	186,729
LABOR			
Polished Plate Cutting Dept.	17,587.29	29,920.47	8,494.73
Pyralin Dept.	18,897.97	22,764.80	3,780.71
Assembly & Pressing Dept.	126,601.08	160,013.58	26,432.40
Edging Dept.	82,898.66	107,376.75	34,374.99
TOTAL	245,985.00	320,075.54	73,082.83
SUPERVISION - Number of Persons	9	19	10
OFFICE EXPENSE (FACTORY)			
Labor	11,976.23	28,732.76	8,595.26
Material	4,269.20	11,745.46	1,954.71
TOTAL	16,245.43	40,478.22	10,549.97
TRANSPORTATION - Trucking	-	-	-
FUEL, POWER & LIGHT			
Electric Power & Light Purchased	8,617.88	6,021.82	1,992.43
Steam Power "	4,987.15	5,596.80	7,051.85
" " Produced	-	39,935.29	4,870.37
Gas Purchased	-	10.00	-
Compressed Air Purchased	60.24	201.15	336.52
Repairs	4,368.36	5,880.75	1,037.46
TOTAL	18,033.63	57,645.81	15,288.63
MACHINERY REPAIRS			
Conveyor	2,968.84	6,715.79	3,922.92
Autoclave	14,873.15	24,816.44	5,334.88
Glass Racks & Buggies	927.34	4,801.40	372.87
Cleaning Machine	1,266.10	3,260.10	918.49
Edging Machines	6,458.41	9,916.34	2,787.03
Miscellaneous	1,258.38	5,218.39	1,411.33
TOTAL	27,752.22	54,728.46	14,747.52
SUPPLIES			
Gelatin	925.86	974.21	-
Pumice & Rouge	681.52	360.70	82.30
Caps, Gloves, etc.	1,721.72	1,790.32	461.25
Press Blotting Paper	4,162.26	7,141.89	81.82
Ducking or Canvas	1,520.31	1,713.59	10.29
Emery	7,956.05	1,314.14	505.00
Carborundum	261.70	4,849.43	508.82
Miscel. Storeroom Items	6,030.32	11,048.52	4,093.58
Cuffs, Wheels & Aprons-Cutting Dept.	-	2,124.91	652.22
Aprons, Gloves & Smocks-Assembly "	-	2,935.43	26.58
Dib. Phthalate	-	5,645.82	-
Carbitol	-	3,604.00	-
Diethylene Glycol	-	1,076.50	6,024.67
Rubber Covers	-	-	2,231.82
" Diaphragms	-	-	273.40
TOTAL	23,259.74	44,579.46	14,951.73

DUPLATE CORPORATION

ANALYSIS OF EXPENSE ITEMS

	1928	1929	1930
MISCELLANEOUS EXPENSE			
Material	13,122.40	26,553.80	1,261.36
Labor	23,512.96	41,137.36	23,652.15
Steam	13.13	1,031.74	538.90
Water	43.73	1,244.48	28.27
Electric Current	3.44	90.87	35.15
Small Contingent Fund Items	1,242.46	3,018.09	2,001.16
Telephone & Gas	87.75	588.46	-
Safety Expenses	1,404.70	1,687.47	620.66
Production Control	-	8,862.38	8,072.59
Fire Protection	-	3,827.30	1,763.17
Industrial Engineering	-	5,795.72	4,710.86
General Miscellaneous	583.74	1,577.65	1,052.31
Inspection Expense	-	4,925.42	6,078.83
TOTAL	40,014.31	100,340.74	49,815.41
EXPERIMENTAL EXPENSE			
Traveling Expense	1,571.45	-	118.76
Rent Factory Bldg.	309.28	43.36	-
Material	34,097.24	29,261.20	20,569.36
Labor	15,995.72	23,167.23	17,737.48
TOTAL	49,973.69	52,471.79	38,425.60
EXTRAORDINARY EXPENSE			
Dismantling & Moving Equipment	-	17,657.14	3,621.16
PACKING & SHIPPING EXPENSE			
Supervision	196.03	2,512.33	360.58
Labor Packing	4,127.52	11,719.73	5,439.62
" Box Making	1,604.08	2,207.13	-
Hay	632.21	606.72	-
Paper	628.22	741.03	-
Lumber	7,377.21	6,729.04	-
Nails	302.66	334.75	-
Supplies	56.57	9,014.43	5,327.74
Fuel, Power & Light	99.45	935.99	292.78
Office Expense	2,227.74	3,166.26	486.88
Machinery Repairs	144.64	167.76	18.70
Building	36.15	127.78	54.87
Miscel. General Expense	901.72	8,303.43	687.37
Trucking	1,826.31	2,931.04	919.50
Tools	19.84	119.34	-
Production Control	1,861.84	-	-
Rent Building	407.48	199.58	-
Boxes and Cases	-	9,079.37	6,272.25
TOTAL	22,449.67	58,895.71	19,859.69

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DUPLATE CORPORATION

ANALYSIS OF EXPENSE ITEMS

ADMINISTRATIVE	1928	1929	1930
DONATIONS			
Mellon Institute Fellowship	1,875.00	7,500.00	1,875.00
MISCELLANEOUS			
Fire Protection	579.11	977.00	1,357.40
Moving Equipment	205.77	-	-
Drawings	106.66	163.43	-
Stationery & Equipment & Supplies (Office)	260.62	519.18	578.17
Rent .N.J.Penning's Office - G.O.	-	761.92	314.75
Moving Expense - N.J.Penning & J.H.Sherts	609.96	-	-
Miscellaneous	104.77	36.87	1,080.48
E.I.DuPont Attorneys Fees	-	385.57	-
Attorneys Fees - Triplex Suit	-	6,805.86	2,499.75
Legal Expense - Casein	-	-	452.00
" " - Foreign Patents	-	-	1,612.08
Expense Auto Shows	-	-	1,731.09
TOTAL	1,866.91	9,649.85	9,575.72
SALARIES			
Workmen's Add'l. Compensation	-	-	2,749.8
Traffic Dept. - G.O.	-	-	281.28
Drafting Dept. "	-	745.36	-
E.I.DuPont Attorney	-	1,837.10	-
Miscellaneous	793.89	-	1.25
Patent Dept.	2,111.43	4,069.24	661.15
Purchasing Dept.-G.O.	1,177.80	1,200.00	500.00
Accounting Dept. "	891.33	1,200.00	1,300.85
Treas. " "	534.49	600.00	416.65
Engineering " "	1,662.72	-	-
N.J.Penning	335.48	-	-
TOTAL	7,507.14	9,649.70	5,911.02

Commission all paid to Pittsburgh Plate Glass Co. as Sales Agents, percentage on sales.

Pittsburgh Plate Glass Co. account for this item August 1930 shows a loss of $4,461.00 covering period from start of Duplate Corporation to date.

[fol. 999] IN UNITED STATES DISTRICT COURT

Report of Master Sur Account—Filed January 12, 1934

[References are to side folios of this Record. All other references are to pages not contained in this printed Record.]

To the Honorable, the Judges of the Said Court:

The undersigned, to whom was referred the above-entitled case, respectfully reports as follows:

That this is a Master's Report in a patent equity accounting case which comes to the Master by reason of his appointment under two decrees of your Honorable Court, as follows:

Decrees under Which the Master is Operating

Under date of December 9, 1929 your Honorable Court entered an interlocutory decree adjudging the patent in suit (No. 1,182,739) to be valid and infringed by the defendant, Duplate Corporation, the said decree being in all respects confirmed by the Third Circuit Court of Appeals, and providing, inter alia, as follows:

"4. That the plaintiff recover from the defendant the profits, gains and advantages which the said defendant has received or made or which may have arisen or accrued to it by the manufacture and sale of strengthened glass in infringement upon and violation of the invention of claim numbered 12 of said Letters Patent of the United States No. 1,182,739.

"5. That the plaintiff recover from the defendant the damages resulting to plaintiff from the infringement by the defendant of claim numbered 12 of said Letters Patent of the United States No. 1,182,739.

"6. That this case be referred to G. Dixon Shrum, of Pittsburgh, Pa., as a Special Master of this Court, who is [fol. 1000] hereby appointed to ascertain, take and state and report to the Court an account of the quantity of strength-

ened glass described and claimed in claim numbered 12 of said Letters Patent of the United States No. 1,182,739 made, used or sold by defendant and also the gains, profits and advantages which the defendant has received or which have arisen and accrued to it from infringement upon the said exclusive rights of plaintiff under said Letters Patent as to claim numbered 12 thereof, and also the damages which the plaintiff has suffered because of defendant's said infringement upon claim numbered 12 of said Letters Patent of the United States No. 1,182,739."

A Supplemental Bill of Complaint against Duplate Corporation and Pittsburgh Plate Glass Company was subsequently filed by the plaintiff under authority of an Order of Court dated October 7, 1931, and Pittsburgh Plate Glass Company consenting thereto, an interlocutory decree dated December 5, 1931 was entered, providing, inter alia, as follows:

"3. That the plaintiff recover from said supplemental defendant, Pittsburgh Plate Glass Company, the profits, gains and advantages which the said supplemental defendant has received or made or which have accrued to it from its said infringement of the said Letters Patent, together with the damages suffered by the said plaintiff from such infringement, and that with respect to any and all recoveries, adjudged against the said Duplate Corporation by way of profits, damages, costs or otherwise, the said supplemental defendant, Pittsburgh Plate Glass Company and the said Duplate Corporation shall be jointly and severally liable therefor.

"4. That the Special Master heretofore appointed by this Court, G. Dixon Shrum, Esquire, of Pittsburgh, Pennsylvania, shall in the accounting proceedings now pending before him ascertain, take, state and report to this Court [fol. 1001] an account of the quantity of strengthened glass described and claimed in claim 12 of said Letters Patent of the United States No. 1,182,739, made, used or sold by the defendant, Pittsburgh Plate Glass Company and also the gains, profits and advantages which the defendant, Pittsburgh Plate Glass Company, has received or which have accrued to it from said infringement upon the exclusive rights of plaintiff under claim 12 of said Letters Patent

and also the damages which the plaintiff has suffered because of the said supplemental defendant's infringement upon claim 12 of said Letters Patent of the United States No. 1,182,739."

The accounting period was of two years and five months duration, beginning January 1, 1928 and ending May 30, 1930.

The nature of the Infringement

United States Letters Patent No. 1,182,739 were issued May 9, 1916 to Edouard Benedictus and, by mesne assignments, finally became the property of the Plaintiff, Triplex Safety Glass Company of North America, which was formed in June, 1926, with an original investment of $500,000.00, subsequently increased to a little over $2,800,000.00.

The patent in suit deals with laminated or "shatterproof" glass, which is made by sandwiching a layer of adhesive between two layers of ⅛-inch plate glass, the result of which is a glass product that will crack but not shatter, thereby substantially eliminating the danger to the occupant of an automobile from being cut by flying glass. The Benedictus patent called for the use of gelatin as the adhesive. In order that gelatin may be used in this manner, however, it is necessary that it be substantially dehydrated, that is, deprived of water, which was accomplished in the Benedictus patent by means of a dehydrating agent.

[fol. 1002] Prior to the infringement complained of the Pittsburgh Plate Glass Company sold considerable ¼-inch plate glass to automobile manufacturers for use as windshields and windows. In December of 1927, however, the Pittsburgh Plate Glass Company and du Pont Viscoloid Company organized the Pittsburgh Safety Glass Company (whose name was later changed to "Duplate Corporation") and each owning 50 per cent. of the capital stock of the new company.

Duplate Corporation, with knowledge of the patent in suit, then proceeded to manufacture laminated glass. The defendant company likewise made use of gelatin as an adhesive, and was thereupon advised by plaintiff's patent attorney that it (defendant) was considered by plaintiff as infringing the latter's patent. Defendant consulted its

own patent attorney, who thereupon advised plaintiff that defendant was not dehydrating its gelatin by means of a dehydrating agent, but that the gelatin used by defendant was dried merely by exposure to the air and that there was no heat, or other means, used to dry the gelatin after it was spread on the glass. Defendant then asked for and obtained a meeting with representatives of the plaintiff, as a result of which defendant continued to maintain that it was not infringing plaintiff's patent, while plaintiff took the contrary position.

On or about December 31, 1928, plaintiff filed its bill of complaint against the defendant, Duplate Corporation. Defendant filed its answer, the case came on to be heard before the Honorable F. P. Schoonmaker, United States District Judge for the Western District of Pennsylvania, and an interlocutory decree was entered on December 9, 1929, adjudging the patent in suit to be valid and infringed by the defendant. Defendant appealed to the Circuit Court of Appeals for the Third Circuit where the decree was in all respects confirmed.

[fol. 1003] In the District Court the proof showed that ordinary commercial gelatin has a normal moisture content from 10 per cent. to 13 per cent., that the moisture content of defendant's product was from 5.3 per cent. to 10.9 per cent., and that the moisture content of the plaintiff's product was from 7 per cent. to 10 per cent. The District Court found as a fact that the defendant reduced the moisture content below the normal moisture content of gelatin and also that an air dryer is a dehydrating agent.

It appears to the Master that there was an honest difference of opinion between patent counsel representing the defendant and patent counsel representing the plaintiff as to whether the patent in suit was actually infringed. It was subsequently determined by the District Court and affirmed by the Circuit Court of Appeals that the patent was infringed. After a thorough review of the evidence, however, the Master is not of the opinion that the defendant was a conscious and deliberate infringer.

I. The Defendant's Profits

A. Defendant's Original Statement of Account

Pursuant to his appointment, the Master ordered Duplate Corporation to produce in the form prescribed by Equity

Rule No. 63 a duly authenticated statement of account of its manufacture and sale of infringing Duplate, which account was produced and is in evidence under the title "Defendant's Original Statement of Account." From the Profit-Loss sheet of this account, it appears that the defendant claims to have suffered a total loss during the accounting period, from its manufacture and sale of infringing Duplate, of $1,016,945.49. It was subsequently admitted by the Defendant that there were included in the original statement of account certain sums not properly chargable [fol. 1004] against receipts from sales, these items being as follows—

(1) A charge of $60,000.00 for Interest on Investment in the year 1928. Inasmuch as the capital stock of the company was paid in installments during the year 1928, whereas interest had been charged on the entire $1,000,000.00 of capital for the entire year, it was agreed by the defendant that the overcharge on this account amounted to $35,000.00.

(2) Under Experimental Expense the defendant agrees that a number of items charged therein were not properly chargeable to cost of operation. As analyzed in Defendant's Exhibit K, the items therein which should now be excluded amounted to $3,733.31 in 1928; $13,650.73 in 1929 and $24,905.19 in 1930, or a total of $42,289.23.

(3) Donations totalling $11,250.00 to a fellowship in the Mellon Institute should, the defendant agrees, likewise be eliminated from operating cost.

(4) Items carried as "Miscellaneous" under the title "Administrative" and as sub-itemized on the third sheet of the details accompanying the Profit and Loss statement, should be eliminated to the following extent:

E. I. du Pont, attorneys' fees $385.57; Attorneys' fees Triplex suit, $6,805.88 in 1929 and $2,499.75 in 1930; Legal expense—Casein $452.00; Legal expense—foreign patents, $1,612.08, or a total of $11,755.28.

(5) Under "Salaries" additional charges totalling $8,678.92 should likewise be eliminated, being made up as follows:

[fol. 1005] E. I. du Pont, attorney, $1,837.10; and Patent Department $2,111.43 in 1928, $4,069.24 in 1929, and $661.15

in 1930. Plaintiff admits that Triplex Suit and Patent Expense should total $16,788.82 instead of $20,434.20.

Deducting the sum of $108,973.43, being the total of the items eliminated from cost as set forth above from the total claimed loss of $1,016,945.49, leaves an adjusted claimed loss of $907,972.06, which, with Plaintiff's admission above referred to, becomes $911,617.44.

Defendant now claims, however, that two adjustments should be made the other way, namely—

(1) An allowance of $82,788.64, being arrived at by virtue of the fact that subsequent to the termination of the accounting period, Duplate Corporation was compelled to accept actual returns of infringing Duplate sold during the accounting period at $83,561,42 (Defendant's Exhibit W), less $772.78 salvage of reclaimed glass.

(2) During the accounting period Duplate was sold under a time guarantee authorizing replacements of defective material at the expense of Duplate Corporation for a period varying from fifteen months to two years, and which replacements after the end of the accounting period amounted in value to $72,060.42 (Defendant's Exhibit X). The sum of these two additional claimed losses amounts to $154,849.06, which when added to the above adjusted loss figure $911,617.44, leaves an ultimate total claimed loss to the Duplate Corporation upon its infringing business amounting to $1,066,466.50. The propriety of these latter two items will be considered subsequently.

[fol. 1006] B. Exhibits 9 and 9-A

Counsel for the Plaintiff duly filed exceptions to the Original Statement of Account, and it was subsequently agreed between the parties that the accounting firm of Lybrand, Ross Brothers and Montgomery should make an examination of the books and records of the defendant and state an account in accordance with instructions from Counsel for the plaintiff. This new account was introduced into evidence as "Plaintiff's Master's Exhibits 9 and 9-A" and which account was "tied in" with both the "Original Statement of Account" and the books of the defendant. Exhibits 9 and 9-A exclude from cost the items of expense not properly chargeable to receipts from sales as mentioned above, and also exclude several consider-

ably larger items from the computation under the instructions of Counsel for the Plaintiff. These latter items are designated as "Contested items of Cost and Expense Eliminated." The propriety of eliminating all or any part of these contested items from cost and expense constitutes one of the major problems before the Master, and which will be considered subsequently.

C. The Interlocutory Decree of December 5, 1931, as Relating to the Cost of One-Eighth Inch Plate Glass.

During the period within which the Master was conducting hearings on the exceptions filed by Counsel for the plaintiff to the "Defendant's Original Statement of Account," and subsequent to the introduction into evidence of "Plaintiff's Master's Exhibits 9 and 9-A," Counsel for the plaintiff filed a "Supplemental Bill of Complaint" against Pittsburgh Plate Glass Company and Duplate Corporation as hereinabove referred to, alleging, inter-alia, that Pittsburgh Plate Glass Company and Duplate Corporation were not in fact or in law separate [fol. 1007] entities, but that the Duplate Corporation was in fact and in law the alter ego of Pittsburgh Plate Glass Company, and praying that the Pittsburgh Plate Glass Company be adjudged responsible for the acts and doings of the Duplate Corporation as well as its own acts, this Supplemental Bill of Complaint being before the Master as "Plaintiff's Master's Exhibit No. 29."

The Pittsburgh Plate Glass Company consenting thereto, the Interlocutory Decree dated December 5, 1931, as set forth above, was duly entered.

In Defendant's "Original Statement of Account" and likewise in "Plaintiff's Master's Exhibits 9 and 9-A," the defendant, Duplate Corporation, was credited with the market price of the ⅛-inch plate glass manufactured by Pittsburgh Plate Glass Company, not then a defendant, and used by Duplate Corporation in manufacturing non-shatterable glass in infringement of the patent in suit.

Basing their argument upon the Interlocutory Decree of December 5, 1931, Counsel for the plaintiff requested the Master to order the then defendant, Pittsburgh Plate Glass Company, to file an account showing the cost to Pittsburgh Plate Glass Company of the plate glass which went into the infringing structure.

After having heard arguments by Counsel for both parties, and having examined briefs submitted by them, the Master in a written opinion, which appears in the Master's record at pages 745 to 760, and which is attached hereto as "Appendix A" ordered the Pittsburgh Plate Glass Company to file an account showing the costs to it of the plate glass which went into the infringing structure.

Counsel for the defendant then brought this question before your Honorable Court, and after having listened to argument and examination of the briefs filed, the Court [fol. 1008] refused to overrule the Master's decision, without prejudice, however, to the defendant's right to again raise the question upon the Master having filed his final report.

Counsel for defendants in their Brief before the Master on Accounting enumerate "what we believe to be the more fundamental errors in the Master's Opinion, and a reference to subsequent testimony, which, to us, demonstrates that the ruling shall now be rescinded." Inasmuch as the proper determination of this question is so vital, the Master has reconsidered his previous opinion in the light of subsequent developments.

Of the eight items comprising this portion of the brief of Counsel for the defendant, the first three were considered previously, i. e.,

(1) That the claim to Plate Glass profits is an afterthought.

(2) That neither the supplemental bill nor its prayers, nor the consent decree premised thereon, concern the manufacture of plate glass, nor the accountability of Pittsburgh Plate Glass Company for any profit arising therefrom, and

(3) That the Master's ruling must be predicated upon the disregarding of the corporate entity of Duplate Corporation.

After having thoroughly reconsidered these three arguments, the Master remains of the opinion as expressel previously.

In addition to the arguments previously considered as mentioned above, Counsel for the defendant also argues—

(1) That testimony subsequently introduced to the effect that Pittsburgh Plate Glass Company would have sold [fol. 1009] plate glass to the automobile industry for the same purpose and in almost all instances had the sale of laminated glass not been made by Duplate Corporation, requires the Master to reverse his previous opinion.

(2) That insofar as the opinion of the Master is based upon an assumption that the defendants went into the laminated glass business to save the plate glass market of the Pittsburgh Plate Glass Company, it is in error.

(3) That insofar as the Master's opinion may have been predicated upon the belief that Pittsburgh Plate Glass Company was selling plate glass at a profit "while taking a voluntary loss on the sale of the completed product" it is in error.

(4) That Pittsburgh Plate Glass Company manufactures plate glass under a great variety of patents to which the plaintiff has no claim, and

(5) That the owner of a patent is not entitled to recover profits resulting only indirectly from an infringement.

The Master is of the opinion that these arguments do not call for the application of the rule of law as advocated by Counsel for the defendants. At the time this question was considered by him he was and still is of the opinion that, on the facts involved and the practicability and reasonableness of the result, the rule of law set forth in Armstrong v. Belding Bros., 297 Fed. 728, should be applied to this case.

Counsel for the defendants continue in their brief that if the Master should finally rule that the cost to manufacture ⅛-inch plate glass is to be used as a base, a further question arises as to how that cost should be measured, pointing out that the cost of plate glass is summarized under five items (Record page 643) including—

[fol. 1010] (1) Manufacturing and administration;

(2) Interest on investment, 6%;

(3) Allowance for use of patented process and apparatus;

(4) Federal income tax, and

(5) Loss, cutting.

Counsel for the plaintiff concedes the correctness of the first two items, but challenges the last three, which will now be considered in order.

(3) Allowance for use of patent process and apparatus.

This claim is based upon the fact that Pittsburgh Plate Glass Company made its ⅛-inch plate glass by processes involving twenty-six important patents and some lesser ones, which patents resulted in savings over the unpatented process of approximately 12c a square foot in 1928, 9c in 1929 and 9c in the first five months of 1930, as more accurately shown in the account. The operation used by the defendant was known as the "continuous process." The alleged saving is figured by comparing costs of manufacture under the process involving these patents as used at Creighton with the old process as used at Kokomo, Indiana, and Crystal City, Missouri, during the same period, and all three being modern and up-to-date in every respect. Counsel for the plaintiff objects to an allowance for the use of patented process on the grounds that the comparison of costs at the Kokomo and Crystal City plants with those at Creighton is not a proper comparison; and that the patents in question are for details of construction rather than the process itself. The fact remains, however, that the use of these twenty-six patents, which were owned by Pittsburgh Plate Glass Company, and presumably purchased or developed by them at their own expense, re- [fol. 1011] flected itself in the cost to Pittsburgh Plate Glass Company of manufacturing ⅛-inch plate glass, and to which patents plaintiff has no claim. The Master is of the opinion that the claim is proper and that this feature of the elements of cost entering into the manufacture of ⅛-inch plate glass should be allowed. Mason v. Graham, 23 Wall. 261; Tilgham v. Proctor, 125 U. S. 136, 151.

(4) Federal income tax.

This item as it appears in the account (Record page 641) represents 2.267c per square foot in 1928, 2.194c in 1929 and 1.395c for the first five months of 1930. These computations were made by figuring the profit on thin

plate glass in a given year, computing the tax upon the said profit at the then prevailing rate, and dividing by the total sales of thin plate glass in that period. The items of "allowance for use of patented process and apparatus" and "interest on investment" were not taken as income tax deductions in the computation of income, the tax as computed, therefore, representing money actually paid. Although deduction for Federal income tax has been denied to a deliberate infringer, L. P. Larson, Jr. Co. v. William Wrigley, Jr. Company, 277 U. S. 97, it has long since been established that money actually paid as Federal income tax is a proper item of expense in a patent accounting. MacBeth Evans Glass Co. v. L. E. Smith Glass Co., 23 F. 2d 459, 463; Christensen v. National Brake & Electric Co., 10 F. 2d 856, 861-862.

Plaintiff further argues that the defendant has failed to claim or prove any specific amount to be deducted from profits as an allowance for Federal income tax and has failed to prove facts from which the Master can compute what, if any, deductions from profits he should allow because of the defendant's payment of Federal income taxes. Plaintiff also argues that defendant has not shown that [fol. 1012] these taxes were actually paid and no claim for refund is pending.

It having been understood that the accounting of plate glass profits should be put in the form in which it was actually cast (Record, page 643), with plaintiff being given the right to examine the Plate Glass Company's books, and as it chose to do, the first objection quoted above cannot be sustained, as the basis upon which the tax is figured appears to be a reasonable one. The Master is satisfied that the taxes as testified to by Mr. McHenry (653) were actually paid, that no claim for refund is pending, and that this feature of the defendant's expense cannot be satisfactorily taken care of in any of the various methods suggested by Counsel for the plaintiff.

The Master, therefore, approves the claim for allowance made by the defendant, Pittsburgh Plate Glass Company, for Federal income tax in computing the cost to it of manufacturing ⅛-inch plate glass.

(5) Loss, cutting.

This claim arises from the adjustment which defendant claims to be necessary in order to translate the av-

erage cost of ⅛-inch plate glass for each year in the accounting period into the specific cost to the Plate Glass Company in manufacturing the ⅛-inch plate glass sold to Duplate Corporation. The nature of this special loss is well stated in the testimony of Mr. Higgins (Record, pages 800-801). The most expensive order which a glass company has to execute is an order calling for a large quantity of glass in one size. If the glass company can sell pieces of glass of various sizes, the cutter can cut around the flaws existing in the original sheet and still enable the company to dispose of various pieces resulting therefrom without any material cutting loss. Where, however, the order calls for large quantities of glass in one size, the result is the accumulation of a large and slow [fol. 1013] moving inventory of glass in comparatively small sizes. Mr. Higgins testified as to the selling prices of these smaller piece of glass, contrasting the same with the average selling price for all plate glass. This special cutting loss reduced the profit per square foot on such sales by approximately 1½c in 1928 and 1929 and by approximately 2½c the first five months of 1930, these figures being arrived at by determining the aggregate sum lost per square foot and applying the same to the actual sales in sheet made to Duplate Corporation (Record, pages 649-650). Under these circumstances, therefore, the Master is of the opinion that loss cutting as hereinabove defined should be considered as a part of the manufacturing cost of ⅛-inch plate glass sold by Pittsburgh Plate Glass Company to Duplate Corporation.

In determining profits, if any, resulting from the infringement of the Letters Patent in suit, therefore, the Master is of the opinion that the cost to the Pittsburgh Plate Glass Company to manufacture the ⅛-inch plate glass entering into the infringing product should be used, and that that cost should be determined by including as elements entering into that cost the items set forth above.

D. Contested Items of Cost and Expense

As herein above referred to, Plaintiff's Master's Exhibits 9 and 9-A were prepared by Lybrand, Ross Bros. & Montgomery who, in accordance with instructions of Counsel for the plaintiff, eliminated certain items of cost and expense from their computations of alleged profits accruing to defendant.

These "contested items" (i. e., those which plaintiff argues should and defendant argues should not be eliminated) may be considered under the following headings:

[fol. 1014] (1) Selling commissions paid to Pittsburgh Plate Glass Company;

(2) Factory operating losses;

(3) Cost of defective product returned during account period;

(4) Cost of defective product returned after accounting period;

(5) Experimental account;

(6) Extraordinary expense.

Some of the above categories require further subdivision, but will now be considered seriatim.

(1) Selling Commissions Paid to Pittsburgh Plate Glass Company

The "Original Statement of Account" included as "Selling Expenses," commissions, costs of packing and shipping, and advertising. Plaintiff's objection goes to the first item only, namely, "Commissions." The plaintiff argues that these commissions, being at the rate of 5% on sales to January 1, 1929, and at 3% thereafter, are entirely improper in some instances and excessive in others. The amount claimed by the defendant Duplate Corporation under this heading is $220,742.95, but, "if Pittsburgh Plate Glass Company is held to account for its profits," then the larger sum of $539,145.98 is claimed.

The defendant, Pittsburgh Plate Glass Company, operated its warehouses as a broker in effecting the larger part of its sales and as a jobber in effecting others, that is, in most instances the warehouses simply took the order and transmitted it to the general offices of the company, while in other instances the warehouses actually received and sold the product. The plaintiff maintains that no commission should be charged on the latter, alleging that [fol. 1015] the sales were at a price sufficient to cover the expenses of the said sales and to reflect a profit. The Master is unable to agree with this contention for the

reason that there is no testimony upon which such a finding of fact might be based. As to commissions on sales made by warehouses in the nature of brokerage transactions, the Master is satisfied that the commissions charged and paid were fair and reasonable and the amount ordinarily charged for like services, and particularly so in view of the fact that these commissions secured the services not of a broker, but of a veteran sales organization with favorable contacts in and a real knowledge of the automobile industry.

The Master can find no justification for the larger claim of $539,145.98 set forth above, however, and refuses to allow the same.

(2) Factory Operating Losses

These alleged losses were divided in the account among various departments, and will be so considered here. The defendant's position is that since these losses occurred concurrently with and as an essential part of producing salable Duplate they are properly chargeable as a part of the expense of producing the Duplate which was actually sold. The plaintiff's position is that these losses were excessive, are improperly computed, and that such losses should be deducted from the profits on profit-making sales only. The manner in which these alleged losses arose will first be considered:

(a) Cutting Department.—The testimony is that plate glass is sold only in brackets measured in inches of even numbers, as eighteen by thirty inches, while, according to the custom of the trade, the customer is charged for the plate glass bracket next larger in both dimensions to the dimensions of the finished product. In those instances [fol. 1016] where the margin of safety was quite close, the bracket actually used might be two sizes larger than the dimensions of the finished product but the customer would be charged for the first larger bracket only. The difference between the size of the finished product and that of the first larger bracket is not a cutting loss, as the customer pays for the larger bracket, but in the second situation cited above, the difference between the bracket first larger to the finished product and the bracket two sizes larger than the finished product is a cutting loss, as the

customer pays for only the smaller of the two larger brackets.

(b) Transportation.—After the sheets left the cutting department, they were transported to the assembling department by being piled upon A-racks, and carried on trucks. The jostling received in transit, not only on account of actual breakage but also on account of the fact that dirt and particles of sand often settled down between the sheets, caused losses. Certain orders called for extremely sharp corners, and the defendant suffered large losses by the chipping of these corners. Counsel for the plaintiffs endeavored to indicate that losses of this nature were in excess of those which might reasonably be expected, and were an indication of a wanton carelessness on the part of the defendants. With this contention, however, the Master is unable to agree. In determining actual profits the question is not what the losses might have been, nor what losses were necessary, but rather what the defendant's losses actually were.

(c) The Assembling Department.—The transportation above referred to brought the sheets from the cutting room to the assembling department, where they were laid in pairs on a conveyor, rubbed with pumice and water upon the upper faces, carried under a blast of warm air to dry [fol. 1017] the pumice, and then under brushes by means of which the dry pumice was brushed off and carried away through a hood. The glass sheets were then passed through a slot in the wall of a room in which were three swinging spray guns, by means of which the gelatin solution (pyralin) was sprayed in a very thin film on the upper face of each of the glass plates.

The glass plates were then passed under a warm air dryer to the place of assembly, where they were laid together with an interposed sheet of pyralin. The assembled sandwich then passed through a slot in the opposite wall of the room to a point where the inspectors examined it for dirt and defects and then bound the plates and pyralin together by means of gummed paper slips applied at intervals around the sandwich.

Grit and dust frequently clung to the pyralin, which would result in a defect which the automobile people would not accept, and, although all precautions were alleged to

have been taken, the finished product was not always free from dirt and many rejections were caused thereby. This condition was particularly acute in view of the fact that a sheet of pyralin is charged with static electricity which attracts loose particles from the atmosphere to its surface. Although a separate room was built in which the air was filtered and the employees were required to wear uniforms, these contaminating influences frequently caused rejects and defects which were later caught by the inspectors.

(d) The Pressing Department.—The larger proportion of the alleged factory operating losses were suffered in the pressing department, partially because of operating difficulties and also because defects not discernible earlier in the process would assert themselves in the final pressing operation.

In the early stages of the infringement, the defendants, after comparing the merits of the platen press and auto-
[fol. 1018] clave processes, determined upon the latter. By means of the autoclave process the individual sandwiches were wrapped in cloths and sealed in rubber bags of suitable size. These rubber bags, after having been sealed by means of clamps, were evacuated of all air and gaseous content. These bags were then placed in the autoclave, which itself was sealed and filled with hot water pumped into it under pressure and circulated until the water was of a temperature of about 250° and under a pressure of about 150 lbs. per square inch. The pressure was gradually released, cold water pumped in to replace the hot water, the bags taken out, opened, and the pressed sandwich removed therefrom.

Many rejections of finished Duplate resulted from the operations of this department, and particularly on account of "Let-goes" and "Separation." These "Let-goes" were caused by excessive strain put upon the edges of the sandwiches in the bags, causing them to bend to a small degree and, after the pressure had been released, straightening out again and thus leaving a small channel around the edge of the Duplate into which water and moisture would seep. Automobile manufacturers refused to accept glass sheets which had "Let-goes" and required replacements of any sandwiches in which "Let-goes" subsequently made themselves apparent. Although these "Let-goes" might only by one-eighth of an inch in extent, they would eventually

grow in service so that they sometimes grew up into the center of the plate.

In the usual stages the autoclave operation took approximately forty-five minutes, but after a liquid known as carbitol was introduced in place of the water, the defendants were able to shorten this operation to approximately eight minutes, and eventually the defendants perfected a process which enabled them to do without the rubber bags, and, since January 1, 1930, this advanced process has been used for pressing about 99.9 per cent. of the Duplate product.

[fol. 1019] (e) The Edging Department.—Edging presented further difficulties in view of the fact that the product being made up of two pieces of glass approximately one-eighth of an inch thick was quite subject to chipping, and the presence of celluloid between the two pieces further complicated the operation. Subsequently a scheme was devised by which the two corners were rounded, but the bottom face was not touched, and which, while presenting the appearance of having been ground and polished, had not actually been thus treated.

(f) Pyralin Losses.—There were two claims for pyralin losses set forth by defendant:

1. Excessive losses in cutting due to the defendant having been unable at all times to obtain pyralin sheets of a size that could be cut economically, and

2. Defects in the pyralin which, while unrecognized or undiscovered until put to this use, rendered the finished product unfit for use in laminated glass in automobile windshields, such as scum, haze, smudge, etc.

Discussion as to Law of Factory Operating Losses

Counsel for the plaintiff instructed Lybrand, Ross Bros. & Montgomery, in preparing Exhibits 9 and 9-A, to eliminate from the alleged "cost of sales" the factory operating losses which have been discussed above. Counsel for the defendants maintain that all of these losses were incurred concurrently with and as essential parts of the operations resulting in the production of Duplate, and that all factory costs are inseparable as between the production of a good

product on the one hand and the production of a defective product on the other hand.

Counsel for plaintiff likewise points out that, as a general rule, when a part of an infringement results in profits and a part in losses, the complainant is entitled to recover the [fol. 1020] profits without deduction on account of the losses, as each infringement is treated by itself. As pointed out by Judge Thompson in MacBeth Evans Glass Company v. L. E. Smith Glass Company, 21 Fed. (2d) 553 at 554, however:

"But losses occurring concurrently with the gaining of profits should be taken into account, if they resulted from the particular transaction on which the profits are allowed. In other words, though called losses, they are really diminutions, which are taken into account in reaching the resultant profits of the sales on which profits were made."

The Master is satisfied from the evidence that a considerable amount of the finished product had to be turned out only to be rejected or returned in order that a certain volume of perfect specimens might be sold. It was also established by the evidence that even the Ford Motor Company, in making laminated glass under its agreement with the plaintiff, was required to produce five million windshields in order to obtain four million good ones,—and it appears as self-evident to the Master that in the case of Ford, as in the case at bar, the cost of producing the good ones necessarily included the cost of producing the million bad ones, but for which the good ones could not have been produced.

The Circuit Court of Appeals in Continuous Glass Press Company v. Schmertz Wire Glass Company, 219 Fed. 199, stated, at page 203—

"If a part was waste, the cost of making the waste should not be deducted from the cost of making the whole, for the cost of producing waste was an ingredient in the cost of producing the resultant finished product, to the benefit of a credit for which, as against the profits to be charged to it, the defendant is entitled."

[fol. 1021] The records of the defendant as to "Factory Operating Losses" above mentioned appear to be full and complete, and the testimony of Messrs. Clause and Sherts

as to the details of the various operations have convinced the Master that the large operating losses which occurred were unavoidably concomitant with the manufacture of the good finished product and were necessary elements in the cost of the production of the good product and are, therefore, allowed as claimed.

(3) Cost of Defective Products Returned

As explained above, certain Duplate which was not found defective in the factory subsequently developed defects and the product was returned by the customer for that reason. Exhibits 9 and 9-A show the selling value of the Duplate returned during the account period as amounting to $812,770.93, the cost of manufacture of which amounted to $631,280.83. At page 15 of Exhibit 9-A the Accountants subtracted the difference between the selling price and the cost of the returned product from the total alleged profits, making, however, no allowance to the defendant for the cost of manufacture of these returned defectives. And on page 5 of Plaintiff's Exhibit 9, it appears that the so-called average cost of sales per foot of Duplate was computed without regard to the "Cost of Return Sales, 32,824-10 feet." Defendant claims that the cost of returned defective Duplate ($631,280.83) should have been included in the computation of Cost of Sales.

The Master is of the opinion that cost of defective Duplate returned during the accounting period stands upon the same footing as the cost of Duplate found defective in the various stages of its manufacture or finished Duplate rejected before it was sent out to the customers, and that the entire cost of manufacture must be credited to the de- [fol. 1022] fendant as an essential part of the cost of the manufacture of the good product actually sold.

Duplate Corporation made some effort to obtain at least some salvage from its defective Duplate, both as to that which never left the factory and that which was returned by the customers. Originally an effort was made to separate by boiling and thus recover the sheets of plate glass. This was discontinued in view of the fact that the glass was damaged thereby. Subsequently a further effort was made to separate the glass under pressure instead of in a tank, where the results justified the cost of separating. Still a

third method was by cutting down defective Duplate in smaller sizes where it was thought a substantial recovery could be obtained. In none of these efforts was the defendant's success very marked. Whatever salvage was again sold, however, was accounted for by the defendant. The cost of making a defective piece was charged to the cost of manufacture, but when the piece was cut down and sold again, it was put back into the product at a cost equal only to the cost of cutting it down, and whatever was received for it went into receipts from sales.

The Master is therefore of the opinion that the defendant is entitled to charge the cost of the defective product returned during the accounting period as part of its manufacturing cost in this accounting.

(4) Returns After the Accounting Period

After the accounting period approximately 50,000 feet at a net billing price of $83,561.42 were returned. Plaintiff contends that the defendant should not be allowed a deduction for the glass thus listed in Defendant's Exhibit W. The Master is of the opinion that returns subsequent to the accounting period stand upon the same footing as those [fol. 1023] made during the accounting period as discussed above, the same reasoning being applied in both cases.

A further question is the manner in which these returns should be handled in the account in order to obtain a proper cost to be subtracted from the billing price. Inasmuch as the returns were received subsequent to the accounting period no cost is at hand for the months in which the returns were actually received. The Master is of the opinion that the average monthly costs for May 1930 (the last month of the accounting period) multiplied by the feetage to obtain the cost of the glass, and then this result to be deducted from the billing price of $83,561.42, is the proper procedure to be followed.

(5) Experimental Expense

Mr. Sherts testified that this account was set up in order that the defendant might ascertain what the actual production cost would be exclusive of expenses of a temporary nature which would not occur after the development had

progressed to a thoroughly operating standpoint. An item which appears in the statement for 1929, for example, and amounting to over $18,000.00, was explained by Sherts as covering the salary and office help of technical men employed for the purpose of more quickly overcoming the problems of a production nature which were developing, these men actually doing the work which would have been done by regular production supervision had a proper organization been developed. Following explanations of this character, Mr. Sherts identified defendant's Exhibit K as distinguishing that portion of the so-called experimental account which was actually experimental, and that portion which, in his opinion, should properly be classified as belonging to cost of production, this calculation resulting in a total of $143,271.73 being allotted $100,982.50 to operation [fol. 1024] and $42,289.23 as experimental. As to the $42,289.23 which the defendant admits to be experimental, no deduction can be made even by way of including it in manufacturing expense or otherwise, unless it is shown that these expenses were incurred on account of the infringing product. Crosby Valve Co. v. Consolidated Valve Co., 141 U. S. 441; Computing Scale Co. v. Toledo Computing Scale Co., 279 Fed. 648, etc.

The question thus presented to the Master is whether the defendant has properly shown that the major portion of the experimental expenses, as set forth on the books of the company, are not, in fact, experimental expenses at all, but rather operating expenses. The mere fact that the label "Experimental Expenses" was used by the defendant does not of itself necessarily exclude a claim by the defendant on that account, the all important consideration being the facts behind the name rather than the name itself.

Counsel for the plaintiff maintains that the defendant's label should be conclusive, and also criticizes the allocation of certain specific sums to production costs, these sums totaling slightly less than $7500.00. After having analyzed the various objections as raised by counsel for the plaintiff, and in consideration of the testimony both on direct and cross-examination with respect thereto, the Master accepts the testimony of Mr. Sherts that his division as set forth in Exhibit K is substantially correct, and allows the sum of $98,312.71 (Lybrand, Ross Bros. & Montgomery figures) of

the so-called "Experimental Account" to be included in the cost of producing the infringing Duplate.

(6) Extraordinary Expense

In the "Original Statement of Account" defendant included expenditures in the sum of $21,278.30 as the cost of [fol. 1025] dismantling and moving equipment in the years 1929 and 1930. Lybrand, Ross Bros. & Montgomery, under instruction of plaintiff's Counsel, omitted this item (corrected to $21,273.83) from their computations. The witnesses for the defendant testified that in 1929 they moved from their old factory to a new factory in the hope of correcting certain difficulties which they were experiencing in the old plant. Subsequently they again moved back to the old plant because of dissatisfaction with the new, and for a time operated both factories simultaneously, eventually discontinuing all work in the new plant while additional alterations were being made therein, and then moving back into the new factory after these conditions had been corrected.

The Master agrees that this item of actual expense represents an operating cost which should be included in the computation of profits accruing to the defendant, if any.

(7) The Comparison of Average Costs and Specific Selling Prices

Lybrand, Ross Bros. & Montgomery, in computing Exhibits 9 and 9-A allocated overhead to specific sales units for the purpose of determining the profitable sales. The figures upon which this exhibit was drawn up, of course, were taken from the books of the defendant company. In using these figures as a base, Lybrand, Ross Bros. & Montgomery, under instructions of plaintiff's Counsel, proceeded to divide sales into two categories, namely, sales made at a profit and sales made at a loss. Counsel for the plaintiff then argued that in computing profits no deductions can be made for losses incurred in loss-producing sales as thus shown by way of reducing the profits made on profit-making sales.

It is a fundamental rule of patent accounting procedure that where the infringement of a product claim is being ac- [fol. 1026] counting for each sale constitutes a separate

infringement, and the profits derived from each sale must be accounted for and turned over to the plaintiff. If some sales result in losses the defendant must bear these losses itself and may not offset the loss-incurring sales against the profitable sales.

The question now before the Master, however, is how these profits and losses should be computed. Counsel for the plaintiff argues that in this particular case, at least, the proper method is to compare average costs with specific selling prices, justifying that argument upon the basis that—

(1) The defendant used this method in its own books in figuring its cost.

(2) This method has the approval of authorized accounting authorities.

(3) It is the only method by which due effect may be given to the fundamental principle of patent accounting as set forth above, and

(4) That it is the only method short of mathematical precision (which is not necessary in any case) by which substantial justice may be done between the parties to this case.

In this particular instance, however, average costs do not reflect specific costs for many reasons, among them the following:

(1) All production does not cost the same per foot in any given month due to difference in cost of glass on account of size, bracket and quality, and in cost of pyralin because of finish and size of sheet.

(2) Cutting losses of different brackets of glass are not equal nor are losses in operation equal.

[fol. 1027] (3) Edge work was performed on some sales and not on others, causing a considerable spread in cost of manufacturing.

(4) The cost of an order for one thousand windshields is much less per light than the cost of an order for ten windshields, because, regardless of the size of the order, a template must be made and can be used for a thousand lights as well as ten.

The method sought to be applied by the plaintiff is unsound for the further reason that items of overhead such as taxes, insurance, general office expense and the like are spread equally over all the product manufactured during any given period, while prices are quoted, business done and profits made on quite a different basis. Once items of overhead have been absorbed, the manufacturer is in a position to add to his net profits by taking business at any figure above his direct cost, ignoring overhead entirely.

Counsel for the defendants cite an example of a round trip ticket to Washington, D. C. on certain trains for $4.00. While the railroad could not haul all passengers at this rate, as soon as the regular freight and passenger business has absorbed its entire overhead and indirect expense this excursion business can be and is properly carried on at something above the railroad's out-of-pocket expense and without the allocation to this specific business of any overhead at all, and such a practice increases the net profits of the railroads.

Counsel for the defendants cites Christensen v. National Brake & Electric Co., 10 F. (2d) 856, 867, et seq.

Counsel for the plaintiff attempts to distinguish the case above cited by arguing that Judge Geiger in that case was discussing a situation wherein the proof showed that the infringing defendant was honestly endeavoring to make [fol. 1028] profits by making overhead, while in the case at bar there is no proof that the defendant here was making any endeavor to make profit by making overhead. The Master agrees with Counsel for the plaintiffs to the extent of his argument wherein he states that there is no evidence that the defendant here was endeavoring to make profit by making overhead, nor does the Master believe that the Christensen case stands for a general proposition that average costs and specific selling prices may never be compared.

In view of the fact, however, that in the case at bar production costs vary materially with different orders due not only to peculiar or difficult sizes and shapes of lights for windshields or windows, but also to edge work, templates, etc., the Master is of the opinion that the ruling of Judge Geiger in the case above cited rules the case at bar, and that the fact that the defendant's own books computed costs on an average basis does not justify the subtraction of an average cost from a specific selling price, in order to deter-

mine whether a given transaction was a loss-producing or profit-making one.

Counsel for the plaintiff in his reply brief calls to the Master's attention the method illustrated in Klooster on Patent Accounting at page 271, wherein all overhead is allocated to the profitable sales leaving the unprofitable sales to bear none of the overhead. The Master is of the opinion that this method of computation is invalid for the same reasons as mentioned above, and that in the case at bar no equitable method of determining what specific sales were made at a profit and what at a loss, if any, in either case, has been suggested, nor is the Master himself acquainted with any other method, the application of which would be equitable in the case at bar, as a consequence whereof no comparison is to be made herein between average costs and specific selling prices.

[fol. 1029] (8) Additional Claim of Plaintiff as to Pyralin Losses

On October 4, 1932, Counsel for the defendant put into the evidence Exhibit "Q" being a recapitulation of pyralin losses from May 1929 to May 1930. A portion of these losses is set forth in feet and a portion in sheets. On November 2, 1932, defendant introduced Exhibit "Q 1", which computes losses in sheets in the terms of feetage, and these two exhibits, when taken together, disclose that between May of 1929 and May of 1930 inclusive the total pyralin losses in square feet was 418,493.

Comparing Exhibits "Q", "Q 1" and "R" as well as Plaintiff's Exhibit 10, we find that the total in operating losses both before and after assembly during the accounting period totaled 2,947,785 square feet. Of this latter amount 1,047,526 square feet represented losses after assembly and 1,900,258 represented losses before assembly.

The difference between 1,900,258 and 418,493 square feet, or 1,481,765 square feet represents all losses in pyralin prior to assembly up to May, 1929.

According to Exhibit "Q" these 418,493 square feet represented value of $84,182.11 or at the rate of $.2012 per foot. Applying this average price per square foot to the pyralin losses prior to assembly up to May, 1929, to-wit, 1,481,765 square feet, we find that the dollar value of these losses

was $298,131.12, which is included in the cost of material used in the Assembling Department during this period.

As heretofore pointed out, Counsel for the plaintiff maintains that, as a matter of law, the defendant is only entitled to the cost of the pyralin used in making the profitable sales plus whatever cutting losses it might have suffered in manufacturing the glass which resulted in the profitable sales.

Although the Master is of the opinion that the profitable sales cannot be separated from the non-profitable sales in [fol. 1030] this manner, as more thoroughly discussed above, he deems it advisable to show this additional claim of the plaintiff in the account. Counsel for the plaintiff contends that 73.47% of defendant's total sales represent profitable sales so that, on plaintiff's theory of the case, plaintiff would be entitled to a credit of 73.47% of $298,131.12 or $219,036.93, which amount is accordingly set forth in the account under the heading "Additional pyralin losses" which the Master has refused to exclude from cost of sales, but which, under the plaintiff's theory of the case, should be excluded.

Upon recalculating the defendant's alleged profits in accordance with the foregoing, and using the figures for individual items as set forth in Exhibits 9 and 9-A, it appears that defendant instead of operating at a profit during the accounting period, operated at a net loss of $276,857.47, as appears by a calculation attached hereto and marked "Appendix C."

II. The Plaintiff's Damages

Having disposed of the matter of the defendant's profits, the next question is as to the plaintiff's damages. The plaintiff claims that damages resulted to it from forced reduction in its selling prices caused by the alleged cut-price competition of the defendant, and also introduces general evidence tending to show that it has been damaged and opinion evidence tending to establish, along with the other evidence, a basis for a reasonable royalty.

Established Royalty.—Although the plaintiff was in existence five years prior to the termination of the accounting period, it had granted but two licenses in that time, one to the Johnston Glass Company and the other to the Ford Motor Company. As to the former, there is no satis-

factory evidence of sales under it. As to the latter, the [fol. 1031] Ford license involved a free license on half of the requirements of the Ford Motor Company and a so-called royalty which, in reality, covered a manufacturer's profit as well. Even if the two elements of the Ford license were to be divided, no established royalty would have been proved, as no market price could be determined upon the sale of but two licenses in five years. Rude v. Westcott, 130 U. S. 152, 165; Wallace & Tiernam Co. v. City of Syracuse, 45 F. (2d) 693; Dunkley Co. v. Central California Canneries, 7 F. (2d) 972, 976; 270 U. S. 646.

Sales Lost and Prices Reduced: For plaintiff to establish that it was damaged because of sales lost by it to Duplate Corporation, it would have been required to prove—

(a) That it had the manufacturing facilities, personnel and capital to handle the sales made by the Duplate Corporation as well as its own,

(b) That it would have made the sales had they not been made by Duplate Corporation, and

(c) That it would have made these sales at a proven amount of profit.

Walker on Patents, Vol. 1, Section 607.

As to the capacity of the plaintiff's factory, it was testified that at the end of 1927 and the beginning of 1928 the capacity of plaintiff's factory was about 1200 lights per day of twenty-four hours, the lights averaging about three square feet, or, on the basis of 300 working days in a year, approximately one million square feet capacity per year. Shortly after the beginning of 1928 it acquired a new factory and ordered 100 additional presses, thus increasing its production capacity to approximately 36,000 square feet per twenty-four-hour day or an annual production capacity [fol. 1032] of 10,800,000 square feet. By June of 1929 it again increased its production capacity to about 15,000 lights per day, so that its total capacity for 1929 was approximately 12,600,000 square feet, which capacity was maintained in the first five months of 1930. During this period, however, it produced about 50,000 square feet in 1927, 2,137,860 square feet in 1928, and 6,613,353 square feet in 1929. This surplus production capacity for the

entire period, therefore, was ample to take care of the sales made by the defendant, even though deduction for breakage, etc., were allowed.

The burden was upon the Plaintiff to establish that it would have made the sales had they not been made by the Duplate Corporation. Inasmuch as this feature is closely allied with defendant's proof as to losses on Triplex sales occasioned by reduced prices, it will be considered subsequently.

The Plaintiff failed to show at what profit it would have made sales alleged to have been lost to the defendant, which in itself is an insuperable obstacle in the way of awarding damages to the plaintiff measured by sales lost to defendant, as plaintiff admits.

Prices Reduced.—The claim of the plaintiff for losses on Triplex sales occasioned by reduced prices, however, stands upon an entirely different basis. Plaintiff's Exhibit 28 sets forth certain sales to distributors and sales to automobile and body manufacturers for standard and optional equipment. Tabulating the area, amount and selling price per square foot of actual sales and comparing these actual selling prices with the so-called established price, plaintiff claims that the difference between these two represents a loss to Triplex occasioned by reduced prices.

If the Master were able to find as a fact that the so-called "Triplex Established Price List" represented prices generally acceptable to the industry, plaintiff's calculation in Exhibit 28 might be used, but the Master is unable to so [fol. 1033] find, and particularly so in the light of the testimony of Mr. Fisher of the Fisher Body Corporation and Mr. Downey of Chrysler, both of whom stated that the plaintiff's price schedules would not have been generally accepted even had Duplate not been in the business. Inasmuch as alleged losses set forth in that portion of Exhibit 28 which deals with sales to distributors must be based upon an established price generally acceptable, the Master is unable to award any sum to the plaintiff on this account.

That portion of Exhibit 28 dealing with sales to automobile and body manufacturers, however, stands upon a different basis, inasmuch as the names of the purchasers are set forth in many instances and in some of these instances there is testimony to the effect that these particular purchasers had purchased from plaintiff prior to the in-

fringement and at specified prices, thus enabling the Master to find that the plaintiff suffered a loss represented by the difference between the prices thus shown to be acceptable to these respective automobile and body manufacturers as opposed to the prices forced upon plaintiff by the infringement. In the case of the Stutz contract for example, the contract itself called for sales of unsealed plate to Stutz at $2.25 and unsealed sheet at $1.45. The testimony shows that Stutz actually purchased sealed plate at $2.55 and sealed sheet at $1.55. In May of 1929 plaintiff was forced, on account of the infringement, to sell Stutz the sealed product at the prices quoted in the contract for the unsealed product, the actual selling prices being set forth in Exhibit 28. Consequently the difference between the price previously agreed to be paid by Stutz under the contract, and the price forced upon plaintiff by the infringement, represents a loss to plaintiff which is calculable. In Exhibit 28 plaintiff takes the spread between the so-called established price and the actual selling price as to Stutz. [fol. 1034] Inasmuch as there is no testimony that the established price was ever satisfactory to Stutz, however, the Master has taken the figure $2.55 as explained above rather than $3.14, for which the Master is unable to find any basis in the testimony. Certain other manufacturers named in Exhibit 28 were also shown to have purchased from plaintiff at various prices prior to the infringement, and, based upon this testimony, the Master has recomputed that section of Exhibit 28 finding, as a result of this recomputation, that the plaintiff suffered a calculable loss occasioned by reduced selling prices of $2807.89 as per calculation set forth as "Appendix D" attached hereto.

The Master is satisfied that the price reductions from which this computation was made were brought about by the competition of defendant.

Reasonable Royalty.—The fact that the Master is not able to award any specific damages to the plaintiff on account of lost sales nor for any substantial loss due to reduction in its selling prices, does not, however, prevent a determination of the value of the patentee's property right and the damages to plaintiff by virtue of its invasion or appropriation by defendant, and in so determining the Master may resort to the large range of testimony pertinently bearing upon the reasonable amount to be rewarded.

The Court's adjudication respecting the merit of the invention, its utility and its advantages, must be given weight. A royalty should not, on the other hand, be a penalty, and should be low enough to permit a manufacturing profit to the licensee.

In this connection both the plaintiff and the defendant offered opinion evidence as to the matter of reasonable royalty. Mr. Frank L. Dyer, a man of wide experience in negotiating license agreements, an expert called by the plaintiff, gave as his opinion, based on the facts that were presented to him, that a rate of royalty at 15% of the [fol. 1035] manufacturer's selling price would be a reasonable royalty, and also that any profit the manufacturer could make should be divided with the patent owner. Francis L. O. Wadsworth, likewise a man of wide experience in this field, an expert called by the plaintiff, testified that the fair and reasonable royalty would be 20% of the net selling prices, which opinion was limited on the assumption that the plaintiff's established prices would be maintained, citing several examples of cases with which he was familiar. In neither case was the content of the hypothetical questions then objected to. Counsel for the defendant now states, however, that the plaintiff's expert testimony was based upon erroneous assumptions, specifically objecting to the following features:

(a) That the questions assumed that laminated glass "was largely used in the automobile trade for automobile windshields and windows."

(b) That the questions assumed that the lamination provided "an unclouded glass."

(c) That the questions assumed that the market was "rapid and broadening."

(d) That although the Ford contract was mentioned in the question the experience under this contract was not disclosed.

(e) That the questions assumed that the licensee would add to the actual cost "a profit of forty or fifty per cent."

(f) That the questions assumed that there was "a very substantial demand" for the product.

(g) That the questions assumed that "practically all risk had been eliminated and a substantial demand had been [fol. 1036] created."

Counsel for the defendant likewise introduced expert witnesses, Messrs. J. King Harness, patent attorney for Chrysler, and Lloyd Blackmore, patent attorney for General Motors. Mr. Harness testified that the royalty should not exceed ½¢ per foot. Mr. Blackmore stated that the royalty should not be that high if laminated glass were accepted for body lights as well as windshields. The general theory advanced by the plaintiff is that defendant infringed the patent at a time when the major development had been accomplished and when the patent, therefore, had a very real value. Applied to defendant's sales in footage, the value of this patent during the accounting period, according to Messrs. Harness and Blackmore, would be slightly over $20,000.00, which, for reasons hereinafter discussed, appears to be unduly moderate. The defendant's theory is based upon the assumption that the defendant infringed when manufacturing processes were in the experimental stage, considerable educational work remained to be done by way of selling the general public on the safety features of the product by way of creating a public demand, and that under such circumstances an award of a reasonable royalty would be in the nature of a mere gratuity.

This divergence of background requires a further examination into the industry and the product during the accounting period.

During the accounting period the plaintiff's production was a little over eleven million square feet, of which over 93% was sold to the Ford Motor Company and no small part of the balance to individual owners of automobiles as distinguished from manufacturers. Even adding to this the defendant's sales of four million square feet, the aggregate is comparatively small when compared to the total feetage of windshields and windows in the more than eight million cars produced during the accounting period.

[fol. 1037] The experience of the Ford Motor Company was not satisfactory in all respects. Many defects made themselves apparent and many windshields were required to be replaced. Mr. Wibel, Director of purchases for the

Ford Motor Company during the accounting period, testified that 20% of all Ford windshields were rejected or replaced as defective, "a loss ten times too high." Manufacturers of other cars in the low priced field, such as Chevrolet, Plymouth and Essex, did not appear to be unduly apprehensive that Ford would have any advantage over them on this account, and did not adopt safety glass on their own cars, although Plymouth did so later. Nor does there appear to have been a "very substantial demand" for laminated glass at that time. Mr. Wibel testiged that during the years 1928, 1929 and 1930 "there perhaps has been some public demand but not to the exent to influence us necessarily" and added that Ford standardized on safety glass on the ground of protecting the customers rather than on account of public demand. President Fisher of the Fisher Body Corporation stated that there was no public demand and Colonel Downey, a Chrysler executive, likewise agreed that there had been no substantial public demand, as did Mr. J. E. McLarty, service manager of the Hudson Motor Company. Mr. H. S. Wherrett, President of the Pittsburgh Plate Glass Company, testified that they met a great deal of resistance in endeavoring to sell this product to the automobile manufacturers inasmuch as there was no public demand for the same, and, as was testified by Mr. H. B. Higgins, Vice President of Pittsburgh Plate Glass Company, "the buying public were not, as the advertising man says, conscious of laminated glass. They didn't ask for it when they went to buy automobiles; consequently, the automobile manufacturers saw no sales advantage in using it. So that is why I say there was no demand for it." And even Mr. [fol. 1038] Neilson Edwards, Vice President of the plaintiff company, testified that as late as 1926 the public "knew nothing about" laminated glass, and the automobile manufacturers took a position that irrespective of the merits of the product, they did not put it on the cars that they manufactured until the public demanded it, and that they were forced to sell to individuals until they could create a public demand for the product.

In fact, a study of the plaintiff's sales figures reveals that, exclusive of Ford deliveries, total sales to automobile manufacturers and to the general public numbered slightly over seven hundred thousand square feet, which, if devoted entirely to windshields, would only equip about 175,000

cars, by way of contrast to the more than eight million new cars manufactured during the accounting period.

From this evidence, which appears clear and undisputed, it can hardly be said that the hypothetical questions upon which the answer of the plaintiff's witnesses Dyer and Wadsworth were based, conformed with the facts of the case insofar as they assumed a "substantial demand" or an "easy market" for the product. This testimony on the other hand does lend support to the theory of the defendant that no substantial profits could have been made unless and until the public had been educated to appreciate the safety features of laminated glass so that automobile manufacturers would be required to include the same in their products as standard equipment. The laminated glass sold under the Ford contract amounted to approximately 93 per cent. of the total, and the feetage sold by the plaintiff is not so imposing as it would have been had the total feetage been fairly distributed among a larger number of manufacturers. This testimony likewise satisfies the Master that the price schedule adopted by the plaintiff company [fol. 1039] was not generally accepted by automobile manufacturers as being fair.

Messrs. Harness and Blackmore, called by the defendant to testify as to a reasonable royalty, were likewise answering hypothetical questions which in some respects did not take into account established facts, particularly with respect to the Ford contract. This contract, dated October 17, 1927, provided, inter alia, that Triplex Company should grant a license to the Ford Company under the patent in suit, the Ford Company to develop and perfect a continuous process for the manufacture of Triplex glass; to keep the Triplex Company fully informed of the progress of the work with full and detailed information as to the construction of all machines designed and the methods of manufacture employed therein, and, if any such improvements should be patentable, the Triplex Company was to have all rights to the said patents both in the United States and in all foreign countries, subject to the right of the Ford Company to use the same. The Ford Company agreed not to manufacture the same for any use except for its own vehicles, and to etch on every piece made or installed by

it the name "Triplex" and also to use the name "Triplex" in all advertisements and advertising literature wherein laminated glass was referred to. The Triplex Company was likewise to have the full benefit of the purchasing power and position of the Ford Company in the purchase of glass and other materials for use in the production of laminated glass for sale to the Ford Company. The Ford Company agreed to purchase Triplex from the Triplex Company for a period of four years from April 30, 1928 up to one-half of the monthly requirements of the Ford Company, and the Ford Company agreed to pay Triplex Company at the cost of production to the Ford Company or to the Triplex Company, at the option of the Ford Com- [fol. 1040] pany, for such pieces of glass plus twenty cents for each Ford Windshield.

Clearly, there were further advantages to the Triplex Company in this contract than the twenty cents per foot for glass. The fact that the Ford Company, the largest automobile manufacturer in the country, was adopting the plaintiff's glass as standard equipment was an important factor, as well as the advertising feature. The provision of the contract providing that all developments made by the Ford Company which were patentable would be assigned to the Triplex Company and which, in effect, availed plaintiff of the services of the Ford engineering staff, was likewise an important feature of this contract and which was not taken into account in the hypothetical questions submitted to the experts called by the defendant.

In considering the question of general damages, the Master may consider everything disclosed in the litigation which has tendency to establish its worth. Certainly the defendant's conduct and actual experience during the infringing period, insofar as it discloses its own estimate of the importance and value of the patent, and the Court's adjudication respecting the merit of the invention, have persuasive bearing upon this matter. Lee v. Malleable Iron Range Co., 247 Fed, 795. The question is, what would have been a reasonable royalty considering the nature of the invention, its utility and advantages, and the extent of the use involved? In the absence of proof of loss of sales or injury by competition the only measure of damages would be such sums as, under all the circumstances, would

have been a reasonable royalty for the defendant to have paid. In the words of Denison, C. J. in Egry Register Co. v. Standard Register Co., 23 Fed. (2d) 438—

"To adopt a reasonable royalty as the measure of damages is to adopt and interpret, as well as may be, the fiction [fol. 1041] that a license was to be granted at the time of beginning the infringement, and then to determine what the license price should have been * * * When the result is to interfere with a patent monopoly, which the patentee was in position to and desired to keep, by retaining the entire market himself, his compensation for parting against his will with that opportunity must take due account of the loss to him of anticipated profits on the business which the licensees will thus get away from him * * *"

Prior to the infringement the plaintiff had recognized the necessity of establishing a public demand. Concentrating their efforts largely on retail distribution in 1926 and 1927 the plaintiff company established retail offices in most of the major cities of the country, including New York, Philadelphia, St. Louis, Cleveland, Chicago, San Francisco, Los Angeles, and several others. They went into display advertising in the Saturday Evening Post, Time, The New Yorker and three or four other magazines, did a great deal of newspaper advertising and obtained a great deal of news publicity. They spent about $250,000.00 on publicity in 1926-27. After the Ford contract was signed the latter spent $15,000,000.00 on advertising its Model "A" car, and featuring Triplex therein, so that Triplex then discontinued its own advertising.

Prior to the infringement the plaintiff had sold to Chrysler as option equipment and as standard equipment on a special phaeton body it was about to bring out. Yellow Taxicab Company had adopted laminated glass of plaintiff's manufacture as standard equipment, Lincoln had adopted it as standard, as also had Ford. Cadillac, Chrysler, Buick and Hudson had adopted the plaintiff's product as optional equipment, and had made some effort to circularize their respective dealers, offering cars equipped with laminated glass as optional equipment.

[fol. 1042] It can readily be seen, therefore, that while the

Master is unable to find that a "very substantial demand" existed for laminated glass prior to the accounting period, that the manufacturers and the purchasing public were, in the beginning of 1928, becoming conscious of the advantages of laminated glass and the plaintiffs were well on the way toward attaining a "substantial demand" for their product.

When defendant entered the field it established prices considerably lower than those of the plaintiff, which naturally led considerable business to leave the plaintiff and go to the defendant, and also caused a reduction in the plaintiff's selling prices. While the Master has not been able to approximate, mathematically, what sales were lost by the plaintiff on account of the infringement, he is satisfied that the price policy of the defendant substantially drove the plaintiff out of the laminated glass business, and that, although other companies were engaged in the laminated glass business, their competition in the manufacture of laminated glass for automobiles was negligible.

The Court has found that the patent in suit consists of a new article of manufacture, is a pioneer patent, and partakes of the humane, and, although the Master has allowed the defendant substantially all of the manufacturing costs claimed by it, except as to the unit price of plate glass which entered into the infringing product, the net loss suffered by the defendant as thus calculated amounts to less than $277,000.00 on gross sales of over eight million dollars.

It was conceded by the defendant that it established its price policy during the accounting period for the purpose of selling to one or more automobile manufacturers in each price field at a low price, in order that other manufacturers in the same fields would be required, on account of competition, to equip their own cars in the same manner.

[fol. 1043] It is, of course, difficult to determie that there was a figure somewhere between the so-called "established price" of the plaintiff and the selling prices of the defendant at which sales could be made at a profit. In view of the fact that the net loss of the defendant was less than $277,000.00 on this volume of business, however, it is evident that the prices of the defendant would not have required a very great increase before profits would have been shown. It would be obviously unfair for the Master to determine

this question of general damages upon an assumption that the price policy of the defendant was the only proper policy to be pursued, as the judgment of the officers of the defendant should not be imposed upon the officers of the plaintiff company. While a determination of a reasonable royalty is necessarily difficult, it is not impossible, as it presents no greater difficulties than are met by Courts and Juries in other fields of litigation.

The license agreement entered into by plaintiff and The Johnston Glass Company under date of May 20, 1929, is likewise worthy of consideration. This agreement calls for a royalty or license fee of 5 per cent. of the selling price or 10 cents per square foot of laminated glass, whichever is greater, with licensee's sales per calendar year limited to 10 per cent. of the aggregate sales price of licensor, but not to be limited to less than $1,000,000.00 annually. All glass sold by licensee was to be marked as having been manufactured under this license and likewise all advertising matter. The licensor was to fix the selling prices, and which the licensee agreed to observe, useful information was to be exchanged, and all patents on modifications or improvements to be the property of the licensor.

Under all the circumstances of this case as outlined above, and in view of all the testimony which the Master [fol. 1044] has heard, the Master is of the opinion that, considering the nature of the invention, its utility and advantages and the extent of the use involved, a reasonable royalty would be ten cents per square foot, which, multiplied by the 4,141,207 total sales in footage of defendant throughout the accounting period, amounts to $414,120.70. In arriving at this figure, the Master is in effect assuming the existence ab initio of, and declaring the equitable terms of a supposititious license, and does this nunc pro tunc. It creates and applies retrospectively a compulsory license. Egry Register Co. v. Standard Register Co., 23 Fed. (2d) 438.

Findings of Fact

1. That the infringing period began on January 1, 1928 and ended May 30, 1930.

2. That the defendant had knowledge of the patent in suit when it began its infringement.

3. That the defendant was advised by patent counsel that if it dehydrated its gelatin by means of a dehydrating agent so as to leave it substantially free from moisture, it would infringe.

4. That there was an honest difference of opinion between patent counsel representing plaintiff and patent counsel representing defendant as to whether the patent in suit was actually infringed.

5. That the actual cost to Pittsburgh Plate Glass Company to manufacture the one-eighth inch plate glass used by it, or sold by it to and used by Duplate Corporation in manufacturing the infringing product, was $.15590 per square foot in 1928; $.15637 in 1929; and $.18569 in the first five months of 1930.

[fol. 1045] 6. That the savings to Pittsburgh Plate Glass Company brought about by its use of patented process and apparatus owned by it and used in the manufacture of the one-eighth inch plate glass in question was $.12474 per square foot in 1928; $.15637 in 1929; and $.18569 in the first five months of 1930.

7. That Pittsburgh Plate Glass Company paid as Federal Income Tax on its manufacture of the one-eighth inch plate glass in question, 2.267¢ per square foot in 1928; 2.194¢ in 1929; and 1.395¢ in the first five months of 1930, and that no claim for refund is pending.

8. The Pittsburgh Plate Glass Company suffered a "special cutting loss" on its sales of the one-eighth-inch plate glass in question, amounting to 1.548¢ per square foot in 1928; 1.621¢ in 1929; and 2.590¢ in the first five months of 1930.

9. That the interest on Pittsburgh Plate Glass Company's investment in the manufacture of the one-eighth-inch plate glass in question amounted to 2.553¢ per square foot in 1928; 2.021¢ in 1929; and 3.482¢ in the first five months of 1930.

10. That Duplate Corporation sold its infringing product through the sales organiaztion of Pittsburgh Plate Glass Company, and the commissions charged therefor, being at the rate of 5% on sales to January 1, 1929 and at 3% there-

after, and amounting to $220,742.95, were reasonable and proper.

11. That the hazards connected with the manufacture of laminated glass were such that a considerable amount of the infringing product had to be rejected or "scrapped" in order that a certain volume of salable specimens might be produced.

[fol. 1046] 12. That defendant suffered certain "factory operating losses" in the manufacture of the infringing product, which losses, exclusive of the cost of the one-eighth-inch plate glass included therein, totalled, during the accounting period $538,019.87.

13. That during the accounting period customers returned to defendant and received credit for certain laminated glass found to be defective, which returns, exclusive of the cost of the one-eighth-inch plate glass included therein, totalled $286,041.61.

14. That subsequent to the accounting period customers returned to defendant and received credit for certain laminated glass sold during the accounting period and subsequently found to be defective, which returns, less salvage, totalled $82,788.64.

15. That of the so-called "Experimental Account" set up by defendant, $98,312.71 thereof actually represents costs of production rather than experimental expenses.

16. That defendant spent the sum of $21,273.83 in dismantling and moving equipment in the hope of correcting certain manufacturing difficulties experienced in the old plant, this figure being set up in the account as "Extraordinary Expenses."

17. That defendant, in figuring its costs, used average manufacturing costs month by month although production costs varied materially with different orders. The Master is unable to determine specific manufacturing costs.

18. That a change in defendant's accounting procedure during the accounting period necessitates a separate item, set forth as "Additional Pyralin Losses", said losses amounting to $219,036.93.

[fol. 1047] 19. That defendant, during the accounting period, operated at a net loss in the manufacture and sale of the infringing product of $276,857.47.

20. That there is no established royalty for the patent in suit.

21. That plaintiff had the manufacturing facilities, personnel and capital to handle the sales made by Duplate Corporation, as well as its own.

22. That the plaintiff suffered a loss of $2,807.89 due to price reductions forced upon it by the price policy of the defendant.

23. That the plaintiff had an investment in its laminated glass business of an amount approximately $2,800,000.00.

24. That the plaintiff, at the time the infringement began, had established a market for laminated glass.

25. That a reasonable royalty for the manufacture of laminated glass under the patent in suit during the accounting period was 10¢ per square foot.

26. That the defendant during the accounting period manufactured 4,141,207 square feet of laminated glass in infringement of the patent in suit.

Conclusions of Law

1. That defendant was not a conscious and deliberate infringer of the patent in suit.

2. That Pittsburgh Plate Glass Company is entitled to credit for only the manufacturer's cost of the one-eighth-inch plate glass used by it, or sold by it to and used by Duplate Corporation, in making laminated glass in infringement of the patent in suit.

[fol. 1048] 3. That in computing the manufacturer's cost of the one-eighth-inch plate glass in question defendant is entitled to an allowance for the use of patented process and apparatus owned by it and used in the manufacture aforesaid.

4. That in computing the manufacturer's cost of the one-eighth-inch plate glass in question, defendant is entitled to

an allowance for Federal Income Tax paid by it on the manufacture thereof.

5. That in computing the manufacturer's cost of the one-eighth-inch plate glass in question, defendant is entitled to an allowance for "special cutting loss".

6. That in computing the manufacturer's cost of the one-eighth-inch plate glass in question, defendant is entitled to an allowance for interest on its investment.

7. That the defendant is entitled to charge sales expenses in computing its profits or losses arising from the infringement.

8. That the cost of the one-eighth-inch plate glass used by the defendant but later resulting in operating losses or returns should be included in the cost of plate glass used, in computing defendant's profits or losses.

9. That the defendant is entitled to include "factory operating losses" in its costs, in computing its profits or losses.

10. That defendant is entitled to charge the cost of the infringing product returned as defective during the accounting period as part of its manufacturing cost in this accounting.

11. That defendant is entitled to charge the cost of the infringing product sold during the accounting period but [fol. 1049] returned as defective subsequent to the accounting period, as part of its manufacturing cost in this accounting, the cost thereof to be figured by multiplying the feetage thus returned by the average monthly costs for May, 1930.

12. That defendant is entitled to charge as a part of production costs that part of the defendant's "Experimental Account" found to represent costs of production.

13. That defendant is entitled to charge as a part of production costs the sum set out in the account as "Extraordinary Expenses".

14. That the nature of this accounting is such that specific selling prices cannot be compared with average monthly

costs in order to distinguish loss-producing from profit-making sales.

15. That defendant is entitled to include "Additional Pyralin Losses" in its manufacturing costs during the accounting period.

16. That the record does not establish any basis upon which an award could be made to plaintiff for lost profits on account of sales lost to plaintiff due to the infringement.

17. That plaintiff is entitled to an award of $2807.89 due to price reductions forced upon it by the infringement.

18. That plaintiff is entitled to an award of $414,120.70 as royalty on the infringing laminated glass manufactured by defendant during the accounting period in infringement of the patent in suit.

[fol. 1050] The Master's Readings, Testimony and Exhibits

The Master's readings, divided as to the particular questions to which they pertain, are listed in "Appendix D", which is attached hereto.

There is returned herewith a true and correct transcript of the evidence and proceedings had and taken before the undersigned, consisting of 1404 pages, bound in 3 volumes. There are also returned the several exhibits presented, indices to 73 thereof being pasted on the two envelopes containing the same, and 4 additional exhibits (9, 9-A, a template and examples of defects) too bulky to permit inclusion in these envelopes, being returned separately.

The Master would be ungrateful were he not to express his appreciation of the invaluable assistance rendered by Counsel for both parties, both for the thoroughness and clarity of their various briefs and for the calculations submitted by them, which enabled the Master to make his final calculations without being required to employ an accountant for this purpose.

Respectfully submitted, G. Dixon Shrum, Master.

[fol. 1051] The Fees of the Master's Office

The Fees of the Master's Office are:

Master's Fees	$15,000.00
Reporter's Fees	1,439.50
Total	$16,439.50

The above has been paid by the parties as follows:

By Plaintiff:

Master's Fees	$7,500.00	
Reporter's Fees	693.00	
		$8,193.00

By Defendant:

Master's Fees	$7,500.00	
Reporter's Fees	746.50	
		8,246.50
Total		$16,439.50

[fol. 1052] APPENDIX "A"

Opinion of Special Master in re Plaintiff's Request for Order Directing Pittsburgh Plate Glass Company to Account for Profits on Plate Glass Sold to the Duplate Corporation.

By decree of Court dated December 5, 1931, the Pittsburgh Plate Glass Company was held to have, jointly with Duplate Corporation and by its own acts as well, infringed upon the Letters Patent here in suit, and the Special Master was ordered to ascertain and report to the Court the quantity of strengthened glass made by the Pittsburgh Plate Glass Company under said Letters Patent and also the gains, profits and advantages which the Pittsburgh Plate Glass Company received therefrom.

Subsequently Plaintiff interposed objections to the Duplate Corporation's statement of account (objections numbered 18 and 19) based upon the fact that the said account took credit for plate glass and pyralin at the market prices

thereof rather than at the costs of production to the Pittsburgh Plate Glass Company and the Dupont Viscaloid Company, respectively, and, following this objection still further, Plaintiff requested the Special Master to require the Pittsburgh Plate Glass Company to file an account revealing its profits on plate glass sold to the Duplate Corporation during the infringing period. Defendant, Pittsburgh Plate Glass Company, "takes the position that this request should be refused because (1) it goes beyond and is contrary to the scope of the pleadings and decrees in this cause; (2) the Pittsburgh Plate Glass Company infringed no right of the Plaintiff until it diverted plate glass to Du- [fol. 1053] plate Cutters and therefore cannot be compelled, as a matter of law, to account for prior profits; and (3) it is unfair to the Master and to the Defendants to permit the Plaintiff to reverse its positions and reopen its case at this late date."

The Special Master, therefore, is now called upon to allow or refuse this request of the Plaintiff, and in the discussion thereof the objections of Defendant numbered (1) and (3) will first be considered, together.

Question. Should Plaintiff's request for an account of profits made by Pittsburgh Plate Glass Company on plate glass sold to the Duplate Corporation during the infringing period be refused because, as alleged, it goes beyond and is contrary to the scope of the pleadings and decrees in this cause, and/or because it is unfair to the Master and to the Defendants to permit the Plaintiff, as alleged, to reverse its positions and reopen its case at this late date?

The Special Master is of the opinion that neither of the two above objections of Defendant should prevail. While the Interlocutory Decree does not specifically refer to profits of Pittsburgh Glass Company in the manufacture of plate glass sold to the Duplate Corporation, neither does it exclude such profits. The Interlocutory Decree does call upon the Special Master to ascertain "the gains, profits and advantages which the Defendant, Pittsburgh Plate Glass Company has received or which have accrued to it from said infringement upon the exclusive rights of Plaintiff. * * *" The measure by which these "gains, profits and advantages" should be ascertained and of what they rightfully consist is our ultimate question, and consequently cannot

be determined without a consideration of Defendant's second objection and the law pertaining thereto. It should [fol. 1054] also be borne in mind that the account filed by the Duplate Corporation is a part of the pleadings and, it having been determined as well as admitted, that the Duplate Corporation was the alterego of the DuPont Corporation and Pittsburgh Plate Glass Company, severally, and vice versa, the question presented by Plaintiff might also be considered with respect to this account and quite apart from that portion of the Interlocutory Decree quoted above.

Nor does the Special Master believe the Plaintiff's request for this further accounting by the Pittsburgh Plate Glass Company to be untimely. The Interlocutory Decree, which raises the question here presented, was entered and presented to the Special Master in the form of an Exhibit before Plaintiff's case had been closed, and Plaintiff, furthermore, could not have raised this question until the identity of the Duplate Corporation and Pittsburgh Plate Glass Company had been determined. Once this identity had been established by the Interlocutory Decree its relationship to a proper basis of accounting was immediately in question (all of which was prior to Plaintiff's closing of its proofs), and therefore even if these specific exceptions had never been raised the Special Master could not have ignored the possible effect of the facts determined by the Interlocutory Decree upon the question of the accounting method which he should properly follow. In Coffield Motor Washer Co. v. Wayne Mfg. Co., 225 Fed. 558 and Armstrong v. Belding Bros. & Co., 280 Fed. 895 the Court held that the Master should look to the evidence for the purpose of determining what issues in the accounting await his determination, even though specific exceptions pertaining thereto may not have been presented.

Having determined, therefore, that Plaintiff's request for an account of profits made by Pittsburgh Plate Glass Company on plate glass sold to the Duplate Corporation during [fol. 1055] the infringing period is subject to neither the first nor third objection raised by Defendant thereto, we come to the fundamental question before the Special Master, namely:

Should the Special Master, in ascertaining the possible profits of Pittsburgh Plate Glass Company from this infringement, credit the Pittsburgh Plate Glass Company with

the market value of such of the raw materials incorporated in the patented structure as were actually manufactured by it, or should it be credited with the manufacturer's cost thereof?

The pertinent facts to which the proper rule of law must be applied are as follows: The patented product manufactured by Pittsburgh Plate Glass Company consisted of two layers of ⅛ inch plate glass between which was sandwiched a layer of transparent viscous material known as pyralin, the result being a laminated glass well adapted for automobile windows and windshields due to its shatter-proof qualities. Plate glass had previously been used in automobile windows and windshields but not plate glass of this thickness—⅛ inch plate glass being too light for this purpose. This thickness was used in train windows, for glazing and for other purposes, and consequently had a general market value outside of the automobile industry. To the automobile industry, however, ⅛ inch plate glass was worthless. Laminated glass, furthermore, displaced heavier grades of plate glass in automobile construction, and as a consequence thereof if Pittsburgh Plate Glass Company had not entered the laminated glass field, it not only would have failed to sell its ⅛ inch plate glass to the automobile industry (except, perhaps, as a raw material to manufacturers of laminated glass in competition with foreign markets) but also [fol. 1056] would have lost sales of heavier grades of plate glass which laminated glass displaced.

Defendant contends that these facts require application of the rule of law expressed in Barber Asphalt Paving Co. v. Standard Asphalt & Rubber Co., 30 F. (2d) 281, 284 (C. C. A. 7th Cir., 1928;—certiorari denied, 278 U. S. 659); and allied cases, including the following:

Homolin Co. v. Harway Dyewood & Extract Mfg. Co., 166 Fed. 434, 436 (C. C. A. 2d Cir., 1908);

Webster Loom Co. v. Higgins, 43 Fed. 673, 674-5 (S. D. N. Y., 1890);

Armstrong v. Belding Bros. & Co., 178 Fed. *Fed.* 554, 556 (D. Conn., 1910);

Carbice Corp. v. Amer. Pats. Development Corp., 283 U. S. 27 (1931).

The rule of law which Defendants seek to invoke is probably best expressed in the Barber Asphalt Paving Co. Case (supra) in which the Court states at page 284,

"(b) Where noninfringing commodities which are marketable, that is, fit for market, are produced by the infringer and subsequently used by him in making the infringing products, then market value (ordinarily selling or transfer value) rather than cost to the infringer, is the proper basis far determining profits."

Defendants likewise maintain that Pittsburgh Plate Glass Company infringed no right of the plaintiff until it diverted plate glass to Duplate Cutters—that up to that point it was simply engaged in the manufacture of a noninfringing, marketable commodity, the profits on which belong to it.

Plaintiff, on the other hand, submits that the rule of law applicable to these facts is that expressed in Armstrong v. [fol. 1057] Belding Bros. & Co., 297 Fed. 728 (C. C. A. 2d. Cir., 1924;—certiorari denied 265 U. S. 585) at pages 731-732 and in Conroy v. Penna. Electrical & Mfg. Co., 199 Fed. 427 (C. C. A. 3d. Cir., 1912), in the latter of which the Court, at page 429, states,

"It is idle, therefore, to say that any hard and fast rule can be made applicable to all cases where profits are to be accounted for. The court and the accounting officer will consider each case in the light of its own peculiar characteristics, and deal with it practically and in a common-sense manner. Upon examination it appears self-evident, from the very nature of the patented invention, that it does not consist of any mere improvement upon, attachment to or modification of a prior device of some special character, but that, on the contrary, it constitutes a new and complete type of article of manufacture, comprising and composed of a combination of certain described elements, constituting a single unifary and complete structure, no one of whose parts or elements could possibly be omitted or withdrawn and a useful and operative device remain."

In these cases, to be discussed later, Defendants were ordered to account for all of the profits made from the manufacture and sale of the complete article.

Having briefly mentioned the contentions of both parties with respect to this question, we must deal with the problem "practically and in a common-sense manner, in the light of its own peculiar characteristics." In so doing we must recognize the fact that, from a chronological stand-

point, Defendant infringed no right of plaintiff until the ⅛ inch plate glass reached the Duplate Cutters. On the other hand, however, we must grant that Defendant could sell as much ⅛ inch plate glass to those who desired it for railroad car windows, casement windows, toilet mirrors, etc., as it ever did, and that ⅛ inch plate glass manufac- [fol. 1058] tured by it for incorporation in the infringing device represented just so much that it would otherwise not have sold, and returned a profit which it would not have made save for the infringement.

If the "market value" rule means "general market value," furthermore, the ultimate result may well be, carried to its logical conclusion, that an infringer can make a profit of say, two dollars per unit in the manufacture of an article which has a market value outside of the particular infringing use, take a voluntary loss of one dollar per unit in the manufacture of the infringing article, come out of the whole transaction with a profit of one dollar per unit which he would not have made except for his infringement, and retain the profits of his wrongful act. If, on the other hand, "market value" means "market value for the same purpose for which the infringing article is used," the result is a practical and common-sense rule, free from the anomalous characteristics of the first stated definition.

The fact that the rule is generally stated in the broader sense is easily explained. Most manufactured articles have a single use. A plow is used for plowing with or without a patented seat, and if A invents a special seat which B unlawfully attaches to plows manufactured by him, it is reasonable for the Court to allow B to credit himself with the market value of his plow without adding the words "for the purpose for which plows of this nature are used," since all plows are used for plowing.

Defendant argues that had it bought this ⅛ inch plate glass on the open market for delivery to Duplate Cutters, the market price would obviously have been a proper cost of manufacture, and because the defendant in effect bought the glass from itself does not change the application of the rule. Since the adoption of the defendant's position would [fol. 1059] permit it, an infringer, to retain a profit on the sale of a commodity entering into the infringing product, while taking a voluntary loss on the sale of the completed product—and thereby defeat the very purpose of the patent

laws—the Special Master is unable to agree that it should be applied to the facts before him. This is especially true since it appears in the testimony that the defendant did sell the laminated glass at much below its costs as a finished product.

Examination of the cases cited by Defendant in this connection clearly shows that all are distinguishable from the facts before the Master.

In Barber Asphalt Paving Co. v. Standard Asphalt & Rubber Co., defendant made and sold prepared roofings with an asphalt base. Asphalt therefore had a determinable market value for roofing purposes, and the defendant company could have sold an indeterminate quantity of asphalt for roofing purposes, entirely aside from its infringing sales of asphalt prepared with the use of the patented process. Obviously it would be as unfair and inequitable to deprive that defendant of its profits on asphalt alone, aside from its value when prepared with the patented process, as it would be to allow this defendant, Pittsburgh Plate Glass Company, to reap profits on the manufacturing and sale of ⅛ inch plate glass which, just as obviously, it would not have reaped except for its infringement.

In Hemolin Co. v. Harway Dyewood & Extract Mfg. Co., logwood extract was a well-known marketable commodity both in the form of liquid and as a paste. Defendant infringed a patent for the treatment of the liquid and paste which gave them certain desirable qualities not theretofore enjoyed by them. In view of the fact that an undeterminable [fol. 1060] quantity of the untreated liquid and paste was yet salable for the same purpose as the improved article, the decision of the Court, in valuing the liquid or paste used at its market price rather than at cost of manufacture, can not be applied to the dissimilar facts of our case.

In Webster Loom Co. v. Higgins, the infringers of a patented loom for weaving carpets could have attained the same results, if, instead of using the infringing looms, they had used twice that number of non-infringing looms. The fact that the Court awarded the patentee the difference between the cost of weaving the carpets on the infringing looms and that cost on the non-infringing looms rather than the net profit per yard on all carpets made on the infringing looms, (thus awarding the saving effected by defendant's use of

the infringing looms) is quite in harmony with the Barber Asphalt and Hemolin Co. cases, but cannot be applied to the peculiar facts of our case without doing violence to common-sense, practicality, and good conscience.

The decision in the Armstrong v. Belding case reported in 178 Fed. 554, concerned itself with silk sold in an infringing package. Since the silk in the holder was adaptable for no purpose beyond that to which skein silk was adapted, the facts are again distinguishable. Carbice v. American Patents Holding Co., holding merely that the defendant was not an infringer simply because it sold Dry Ice, (an unpatented material) knowing that it was to be used in a patented container, is not in point. In Byerly v. Sun Co. the infringer had purchased rather than manufactured the raw materials; hence the decision is not applicable here.

It is true, as Defendant contends, that the use of a marketable commodity in a patented device extends the market for that commodity. In the Barber, Hemolin and Webster [fol. 1061] Loom cases it may have extended the market for asphalt, logwood extract and wool. The distinction is, however, that in the above cases the respective defendants could still have sold the unimproved asphalt roofing, and the unimproved logwood extract, and could still have used the old looms, and for the same purposes, without any special master or Court being able to tell how much the market had been extended, while in the case at bar the market was not extended but was created, for the Pittsburgh Plate Glass Company would not have sold one foot of ⅛ inch plate glass to the automobile industry except for this infringement.

Having thus considered the authorities cited by Defendant in support of its position, let us consider the law from the standpoint of the plaintiff.

Armstrong v. Belding Bros. & Co., reported in 297 Fed. 728, involved a patent on a holder for skein silk, Defendant enclosed in the patented holder some skein silk manufactured by it. The Court, in rejecting Defendant's contention that it was entitled to charge in its account the market value of the skein silk sold in the infringing holders, stated, at page 732,

"What created the demand so supplied was not the desirability of the old silk, but that of the new holder * * *; defendant would not have sold a pound of holder silk had

it not availed itself of plaintiff's patent. Therefore it must pay all the profit it made on sales so made."

Defendant, in its Reply to Memorandum on Behalf of Plaintiff, attempts to distinguish the Armstrong Silk and allied cases cited by Plaintiff, inasmuch as they all exhibit instances of the well-known rule that where an infringer has made profits from the manufacture and sale of a patented article whose entire salable value is derived from the patented invention, the patentee is entitled to recover all the [fol. 1062] profits gained from the unlawful manufacture and sale, and that in all these cases the Court found as a fact *that no profits could have been made except for the use of the patent* (italics by Defendant), while in our case ⅛ inch plate glass has been a well-known marketable commodity for years.

The underlined portion of Defendant's statement brings us back to the question discussed with reference to the Barber, Hemolin and Webster Loom cases, namely, whether the proper market within which profits may be considered is the general market or the market created by potential purchasers and sellers of the article for the purpose for which the infringing article is used. Again it must be borne in mind that Defendant could have made no profits from ⅛ inch plate glass for the automobile industry except for the use of the patent, and, conversely, did not lose a market for a foot of ⅛ inch plate glass on account of the infringement. In other words, Defendants did not extend the market—they created one by the infringement of Plaintiff's patent. The Court in the Armstrong Case did not say that defendant would not have sold a pound of silk had it not availed itself of plaintiff's patent—it said that defendant would not otherwise have sold a pound of holder silk. In our case we cannot say that defendant would not have sold a foot of ⅛ inch plate glass had it not availed itself of plaintiff's patent, but we can and do say that defendant would not otherwise have sold a foot of ⅛ inch plate glass for the purpose in question, and that consequently the entire salable value of the ⅛ inch plate glass in question was derived from the patented invention.

Conroy v. Penna. Electrical & Mfg. Co., Carborundum v. Electric Smelting & Aluminum Co., and Rubber Co. v. Goodyear also stand for the proposition that where the en-

tire salable value of the article in question is derived from [fol. 1063] the patented invention, the patentee is entitled to all the profits gained from the unlawful manufacture and sale. As was said above, the Special Master does not agree with Defendant that the admitted fact that ⅛ inch plate glass was salable outside of the automobile industry is a valid distinction, as this fact does not effect the ultimate question, namely, whether any profits could have been made except for the use of the patent.

Conclusion

Defendant's sales of ⅛ inch plate glass which had been improved by the patented feature did not affect in any manner its sales of unimproved ⅛ inch plate glass. Every foot of ⅛ inch plate glass sold to the automobile industry through its alter-ego, Duplate Corporation represented just so much ⅛ inch plate glass it would not otherwise have sold. These two basic facts remove this situation from that set forth in the Barber Asphalt and allied cases.

If the Barber Asphalt case were held to apply to this situation, this infringer would be permitted to retain a net profit which it would not have made except for the infringement. The facts of the Barber Asphalt case itself, however, produced no such result. The quotation from Armstrong v. Belding, translated into the terms of this case, applies. That quotation, so translated, would read as follows:

"What created the demand so supplied was not the desirability of the old ⅛ inch plate glass but that of the new product * * *; defendant would not have sold a foot of the ⅛ inch plate glass for automobiles had it not availed itself of plaintiff's patent. Therefore it must pay for all the profit it made on sales of ⅛ inch plate glass for automobiles."

[fol. 1064] The rule of law in the Barber Asphalt case is both practical and sensible in the situation covered by it. The rule of law in Armstrong v. Belding is likewise the only practical and sensible solution on its facts. On both the facts involved and the practicality and reasonableness of the result, the rule of law set forth in Armstrong v. Belding must be applied to the facts of the case before us for consideration.

After due consideration, therefore, the Special Master concludes that Pittsburgh Plate Glass Company should be credited with only the manufacturer's cost of the 1/8 inch plate glass sold to the Duplate Corporation during the accounting period, and orders the Pittsburgh Plate Glass Company to file an account revealing its profits on 1/8 inch plate glass sold to the Duplate Corporation during the infringing period.

Since Dupont Viscaloid Company is not before us, no opinion as to its revealing its profits, if any, would be proper, nor is it necessary.

(Here follow 3 photos, side folios 1065-1066, 1067 and 1068)

Page 1 - Sales and Cost of Sales

		SALES
Gross Sales - Defendant's Exhibit Z, page A	4,141,207 sq. ft.	$8,101,614,03
Less Allowances		
Col, 5 page A, Exhibit Z		449,532.46
Sales - Net of returns and before corrections		7,652,082.17
Corrections in favor of Defendant - Exhibit 9A, page 10		294.88
Sales - Net of returns		7,651,787.29
Returns prior to May 31, 1930 - Exhibit Z, page A	437,971	812,770.93
Net Sales - exclusive of subsequent returns	3,713,236 sq. ft.	$6,939,016.36

COST OF SALES

1068)

Total labor, material and overhead cost of all production with thin plate glass as billed, less experimental, etc. - Exhibit
add experimental expense ded
Total labor, material and overhead cost as originally claimed by Defendant - before deducting contested items - Exhibit Z

Items included in above, contested in whole or in part:

Thin Plate Glass used as per Exhibit DD-FF-R	1928	3,600,212 sq. ft. @	.41628 plus
	1929	5,206,609 sq. ft. @	.40294
	1930	1,483,222 sq. ft. @	.35043

Cost of manufacturing Returned Sales exclusive of the thin plate glass which is included above:

Manufacturing cost - Income Accounts Exhibit 9 -				
Less thin plate glass included therein, Exhibit Z-	1928	118,099 sq. ft. x 2 @	.41628	9
	1929	282,411 sq. ft. x 2 @	.40294	22
	1930	26,861 sq. ft. x 2 @	.35043	1

So-called "Operating Losses" exclusive of thin plate glass which is included above:

"Operating Loss" - Exhibit O				
Less thin plate glass included therein, Exhibit O-	1928	1,521,665 sq. ft.	@ .41628	63
	1929	1,090,072 sq. ft.	@ .40294	43
	1930	148,233 sq. ft.	@ .35043	5

Interest on Investment in Duplate

Other contested items:

Additional pyralin losses -
Extraordinary expense -
Donations - Mellon Institute

Gross Sales - Defendant's Exhibit Z, page A	4,141,207 sq. ft.	$8,101,614.63
Less Allowances		
Col, 5 page A, Exhibit Z		449,532.46
Sales - Net of returns and before corrections		7,652,082.17
Corrections in favor of Defendant - Exhibit 9A, page 10		294.88
Sales - Net of returns		7,651,787.29
Returns prior to May 31, 1930 - Exhibit Z, page A	427,971	812,770.93
Net Sales - exclusive of subsequent returns	3,713,236 sq. ft.	$6,839,016.36

COST OF SALES

1068)

Total labor, material and overhead cost of all production with thin plate glass as billed, less experimental, etc. - Exhibit
add experimental expense deduct

Total labor, material and overhead cost as originally claimed by Defendant - before deducting contested items - Exhibit Z,

Items included in above, contested in whole or in part:

Thin Plate Glass used as per Exhibit DD-FF-R	1928	3,600,212 sq. ft. @	.41628 plus
	1929	5,206,609 sq. ft. @	.40294
	1930	1,483,222 sq. ft. @	.35043

Cost of manufacturing Returned Sales exclusive of the thin plate glass which is included above:

Manufacturing cost - Income Accounts Exhibit 9 -				
Less thin plate glass included therein, Exhibit Z-	1928	118,699 sq. ft. x 2 @	.41628	98
	1929	282,411 sq. ft. x 2 @	.40294	227
	1930	26,861 sq. ft. x 2 @	.35043	18

So-called "Operating Losses" exclusive of thin plate glass which is included above:

"Operating Loss" - Exhibit C				
Less thin plate glass included therein, Exhibit C-	1928	1,521,665 sq. ft.	@ .41628	633
	1929	1,090,072 sq. ft.	@ .40294	439
	1930	148,233 sq. ft.	@ .35043	51

Interest on Investment in Duplate

Other contested items:

Additional pyralin losses -
Extraordinary expense -
Donations - Mellon Institute
Commissions (Sales Expenses)
Experimental expenses
Triplex Suit and Patent expense

Portion of Manufacturing Cost on which there is no question or cont

FINDINGS OF SPECIAL MASTER

SALES

APPENDIX "B"

1,614,63		Gross Sales - Exhibit Z, page B			$8,101,614.63
		Less Allowances - Col. 5 page B, Exhibit Z		428,776.80	
9,532.46		Col. 13 page B, Exhibit Z, less adjustment $3,401.72		20,755.66	449,532.46
2,082.17					7,652,082.17
294.88					294.88
1,787.29					7,651,787.29
2,770.93					812,770.93
9,016.36					$6,839,016.36

OF SALES

mental, etc. - Exhibit Z, page B, Col. 10			7,755,620.78
ental expense deducted - Exhibit Y, page 4 - Paragraph 3			62,791.11
d items - Exhibit Z, page A			7,816,411.89
plus	1,498,706.90		
	2,097,973.89		
	519,769.61	4,116,450.49	
	631,280.83		
41628	98,824.04		
40294	227,589.38		
35043	18,825.80	345,239.22	286,041.61
	1,662,637.49		
41628	653,438.71		
40294	439,233.62		
35043	31,945.29	1,124,617.62	538,019.87
			110,000.00
		219,036.98	

				294.88
651,787.29				7,651,787.29
812,770.93				812,770.93
839,016.36				$6,839,016.36

ST OF SALES

imental, etc. - Exhibit Z, page B, Col. 10				7,755,620.78
ental expense deducted - Exhibit Y, page 4 - Paragraph 3				62,791.11
ed items - Exhibit Z, page A				7,816,411.89
28 plus		1,498,706.90		
94		2,097,973.89		
45		519,769.61	4,116,450.40	
		631,280.83		
.41628	98,824.04			
.40294	227,589.38			
.35043	18,825.80	345,239.22	286,041.61	
		1,662,637.49		
.41628	353,438.71			
.40294	439,253.62			
.35043	31,945.29	1,124,617.62	538,019.87	
			110,000.00	
		219,036.93		
		21,275.83		
		11,250.00		
		220,742.95		
		140,601.94		
		16,799.82	629,694.47	
no question or controversy				8,[illegible],208.35
				8,136,205.54

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		APPENDIX "B"	MASTER'S CONCLUSION
Undisputed Costs as per page 1			$2,136,205.54
Cost of all Thin Plate Glass used - Exhibit DD & page 908 of Record			
Manufacturing Cost	1928 - 3,600,212 sq. ft. @ .15590	561,273.05	
	1929 - 5,206,609 sq. ft. @ .15637	814,157.45	
	1930 - 1,483,222 sq. ft. @ .18569	275,419.49	1,650,849.99
Interest on Investment	1928 - 3,600,212 sq. ft. @ .02553	91,913.41	
	1929 - 5,206,609 sq. ft. @ .02021	105,225.57	
	1930 - 1,483,222 sq. ft. @ .03482	51,645.79	248,784.77
Allowance for use of Patented Process	1928 - 3,600,212 sq. ft. @ .12474	449,090.44	
	1929 - 5,206,609 sq. ft. @ .09907	515,818.75	
	1930 - 1,483,222 sq. ft. @ .09694	143,783.54	1,108,692.73
Federal Income Tax	1928 - 3,600,212 sq. ft. @ .02267	81,610.81	
	1929 - 5,206,609 sq. ft. @ .02194	114,233.00	
	1930 - 1,483,222 sq. ft. @ .01395	20,690.95	216,540.76
"Loss Cutting"	1928 - 3,600,212 sq. ft. @ .01548	55,731.28	
	1929 - 5,206,609 sq. ft. @ .01621	84,399.13	
	1930 - 1,483,222 sq. ft. @ .02590	38,415.45	178,545.86
Adjustments in glass costs because of fractional multipliers			37.64
Cost of Returned Sales exclusive of glass cost which is included above - see page 1			286,041.61
"Operating Losses" exclusive of glass cost which is included above - see page 1			536,019.87
Interest on Investment in Duplate			110,000.00

Other Items Contested in whole or part

	Total page 1	Conceded or excluded by Master	
Additional pyralin losses	219,036.93		219,036.93
Extraordinary expense	21,273.83		21,273.83
Donations	11,250.00	11,250.00	-
Commissions	220,742.95		220,742.95
Experimental expenses	140,601.94	42,289.23	98,312.71
Triplex Suit & Patent Expense.	16,788.82	16,788.82	
Defendant's Additional Claim Exhibit W*	83,561.42		
Less Salvage (Record 1135)	772.78		82,788.64
Defendant's additional Claim Exhibit X*	72,060.42	72,060.42	

*(Treated here as additional to cost rather than deduction from sales)

Total Cost		7,115,873.83
Total Sales (uncontested) as per page 1		6,839,016.36
	Net Loss -	276,857.47

1067

8448

APPENDIX "C"

SALES OF TRIPLEX TO MANUFACTURERS REPRESENTING LOSSES OCCASIONED BY REDUCTIONS IN PRICES PREVIOUSLY PAID

Shipped to	Class	Quality	Area	Rate per Sq. Foot	Previous Rate	Difference	Total
August, 1928							
Motor Products	O	Plate	30	4.7837	4.80	.0163	.49
October, 1928							
Fleetwood Corp.	S	Plate	7,410	2.5409	2.55	.0001	.74
November, 1928							
Cadillac	O	Sheet	36	1.5869	2.40	.8131	29.27
January, 1929							
Motor Products	O	Plate	216	4.7154	4.80	.0846	18.27
May, 1929							
Motor Products	O	Plate	39	3.5031	4.80	1.2969	50.58
June, 1929							
Stutz	S	Plate	1,878	2.2494	2.55	.3006	564.53
July, 1929							
Stutz	S	Plate	3,997	2.257	2.55	.2930	1171.12
Chrysler	O	Plate	9	3.30	4.80	1.50	1 .50
August, 1929							
Stutz	S	Plate	2,230	2.2594	2.55	.2906	648.04
Chrysler	O	Plate	27	3.60	4.80	1.20	32.40
Sept. 1929.							
Stutz	S	Plate	383	2.2724	2.55	.2776	106.32
Chrysler	O	Plate	18	3.60	4.80	1.20	21.60
October, 1929							
Stutz	S	Plate	421	2.3516	2.55	.1984	83.53
January, 1930							
Chrysler	O	Plate	45	3.30	4.80	1.50	67.50
							$2807.89

"O" indicates Optional Equipment
"S" indicates Standard Equipment

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[fol. 1069] APPENDIX "D"

The Master's Readings

(1) The Cost of ⅛-inch Plate Glass

Root v. Railway Co., 105 U. S. 189.
Christensen v. National Brake & Electric Co., 10 F. (2d) 856.
Claude Neon Lights, Inc. v. Federal Electric Co., Inc., 135 N. Y. Misc. 113.
Wm. Wrigley, Jr., Co. v. L. P. Larson, Jr., Co., 5 F. (2d) 731.
Cannon Mfg. Co. v. Cudahy Packing Co., 267 U. S. 333.
Ambridge Borough v. Philadelphia Co., 283 Pa. 5.
Barber Asphalt Paving Co. v. Standard Asphalt & Rubber Co., 30 F. (2d) 281.
Byerly v. Sun Co., 226 Fed. 759.
Hemolin Co. v. Harway Dyewood & Extract Mfg. Co., 166 Fed. 434.
National Tube Co. v. Mark, 10 F. (2d) 430.
Webster Loom Co. v. Higgins, 43 Fed. 673.
Armstrong v. Belding Bros. & Co., 297 Fed. 728.
Stromberg Motor Devices Co. v. Detroit Trust Co., 44 F. (2d) 958.
Standard Mailing Machines Co. v. Postage Meter Co., 31 F. (2d) 459.
Metallic Rubber Tire Co. v. Hartford Rubber Works Co., 275 Fed. 315.
Schmertz Wire Glass Co. v. Western Glass Co., 203 Fed. 1006.

(2) Allowance for Use of Patented Process and Apparatus

Mason v. Graham, 23 Wall. 261.
Tilgham v. Proctor, 125 U. S. 136.
Morgan Construction Co. v. Forter-Miller Engineering Co., 234 Fed. 324.
[fol. 1070] Wallace & Tiernan Co. v. City of Syracuse, 45 F. (2d) 693.
Mowry v. Whitney, 14 Wall. 620.

Carborundum Co. v. Elec. Smelting & Aluminum Co., 203 Fed. 976.
Conroy et al. v. Penn. Electrical & Mfg. Co., 199 Fed. 427.
Maimin v. Union Specialty Mach. Co., 187 Fed. 123.
Regina Music Box v. Otto & Sons, 114 Fed. 507.
Hurlbut v. Schillinger, 130 U. S. 456.
Crosby Valve Co. v. Safety Valve Co., 141 U. S. 441.
Armstrong v. Belding Bros. & Co., 297 Fed. 728.
Computing Scale Co. v. Toledo Computing Scale Co., 279 Fed. 648.
Flat Slab Patents Co. v. Turner, 285 Fed. 257.

(3) Federal Income Tax

Macbeth Evans Glass Co. v. L. E. Smith Glass Co., 23 F. (2d) 459.
Christensen v. National Brake & Electric Co., 10 F. (2d) 856.
W. W. Sly Mfg. Co. v. Pangborn Corp., 276 Fed. 971; 284 Fed. 217.
L. P. Larson, Jr., Co. v. William Wrigley, Jr., Co., 277 U. S. 97.
Stromberg Motor Devices Co. v. Detroit Trust Co., 44 F. (2d) 958.
Farmers' Handy Wagon Co. v. Beaver Silo & Box Mfg. Co., 259 Fed. 270.
Gordon v. Turco-Halva Co., 247 Fed. 492.
Macbeth Evans Glass Co. v. L. E. Smith Glass Co., 21 F. (2d) 553.

(4) Factory Operating Losses

Rubber Co. v. Goodyear, 9 Wall. 788.
Manufacturing Co. v. Cowing, 105 U. S. 253.
[fol. 1071] Macbeth Evans Glass Co. v. L. E. Smith Glass Co., 23 F. (2d) 459.
L. P. Larson, Jr. Co. v. Wm. Wrigley, Jr. Co., 20 F. (2d) 830.
Wm. Wrigley, Jr. Co. v. L. P. Larson, Jr. Co., 5 F. (2d) 731.
Continuous Glass Press Co. v. Schmertz Wire Glass Co., 219 Fed. 199.
Callaghan v. Myers, 128 U. S. 617.

Crosby Steam Gage & Valve Co. v. Consolidated Safety Valve Co., 141 U. S. 441.
Canda Brothers v. Michigan Malleable Iron Co., 152 Fed. 178.
Underwood v. Fox Typewriter Co., 220 Fed. 880.

(5) Defective Product Returned

Macbeth Evans Glass Co. v. L. E. Smith Glass Co., 23 F. (2d) 459.
McKee Glass Co. v. Fry Glass Co., 248 Fed. 125.
Crosby Valve Co. v. Safety Valve Co., 141 U. S. 441
Callaghan v. Myers, 128 U. S. 617.
Metallic Tire Co. v. Hartford Rubber Works, 245 Fed. 860.
Permutit Co. v. Refinite Co., 20 F. (2d) 695.
Oil Well Improvements Co. v. Acme Fdry. & Mach. Co., 31 Fed. (2d) 898.
Morgan-Miller Eng. Co. v. Morgan Construction Co., 234 Fed. 324.

(6) Comparison of Average Costs and Specific Selling Prices

Christensen v. National Brake & Electric Co., 10 F. (2d) 856.
Macbeth Evans Glass Co. v. L. E. Smith Glass Co., 21 F. (2d) 553,
Continuous Glass Press Co. v. Schmertz Wire Glass Co., 219 Fed. 190.
[fol. 1072] McKee Glass Co. v. Fry Glass Co., 248 Fed. 125.
Crosby Valve Co. v. Safety Valve Co., 141 U. S. 441.
Callaghan v. Myers, 128 U. S. 617.
Elizabeth v. Pavement, 97 U. S. 126.
Permutit Co. v. Refinite Co., 27 Fed. (2d) 695.
Union Electric Welding Co. v. Curry, 279 Fed. 465.

(7) Established Royalty

Rude v. Westcott, 130 U. S. 152.
Wallace & Tiernan Co. v. City of Syracuse, 45 F. (2d) 693.
Dunkley Co. v. Central Calif. Canneries, 7 F. (2d) 972.

(8) Damages Because of Sales Lost to Defendant

Seymour v. McCormick, 16 How. 479.
Dowagiac Mfg. Co. v. Minnesota Moline Plow Co., 235 U. S. 641.
McSherry Mfg. Co. v. Dowagiac Mfg. Co., 160 Fed. 948.
Motor Player Corp. v. Piano Motors Corp., 19 F. (2d) 993.
Dobson v. Dornan, 118 U. S. 10.
Standard Brands v. Federal Yeast Corp., 38 F. (2d) 314.
Standard Mailing Machines Co. v. Postage Meter Co., 31 F. (2d) 459.
National Metal Weather Strip Co. v. Bredin, 186 Fed. 490.
Cornely v. Marckwald, 131 U. S. 159.
Farmers' Handy Wagon Co. v. Beaver Silo & Box Mfg. Co., 259 Fed. 270.
Bemis Car Box Co. v. J. G. Brill Co., 200 Fed. 749.
Sears, Roebuck & Co. v. Pearce, 253 Fed. 960.
Underwood Typewriter Co. v. E. C. Stearns & Co., 227 Fed. 74.

(9) Loss Due to Sales at a Reduced Price

Boesch v. Graff, 133 U. S. 697.
Cornely v. Marckwald, 32 Fed. 292; 131 U. S. 159.
[fol. 1073] Force v. Sawyer-Boss Mfg. Co., 143 Fed. 894.
Yale Lock Mfg. Co. v. Sargent, 117 U. S. 536.
Pressed Glass Prism Co. v. Continuous Glass, 181 Fed. 151.
Oil Well Improvements Co. v. Acme Fdry. & Mach. Co., 31 F. (2d) 898.
Dowagiac Mfg. Co. v. Deere & Weber, 284 Fed. 331.

(10) Reasonable Royalty

Wallace & Tiernan Co. v. City of Syracuse, 45 F. (2d) 693.
Austin-Western Road Machinery Co. v. Disc Grader & Plow Co., 291 Fed. 301.
Standard Brands v. Federal Yeast Corp., 38 Fed. (2d) 314.

American Can Co. v. Goldee Mfg. Co., 31 F. (2d) 492.
Dunkley Co. v. Central Calif. Canneries, 7 F. (2d) 972.
Consolidated Rubber Tire Co. v. Diamond Rubber Co., 226 Fed. 455.
Rockwood v. General Fire Extinguisher Co., 37 Fed. (2d) 62.
The Suffolk Co. v. Hayden, 3 Wall. 315.
Seymour v. McCormick, 16 How. 479.
Lee v. Malleable Iron Range Co., 247 Fed. 795.
Egry Register Co. v. Standard Reg. Co., 23 Fed. (2d) 438.

[fol. 1074] IN UNITED STATES DISTRICT COURT

PLAINTIFF'S EXCEPTIONS TO MASTER'S FINAL REPORT—Filed February 1, 1934

Exceptions taken by the plaintiff to the report made and filed in the offices of the clerk of the District Court of the United States for the Western District of Pennsylvania, on the twelfth day of January, 1934, by G. Dixon Shrum, appointed Special Master in the above-entitled case, to take and state an account as directed in decrees entered in the above-entitled case on the ninth day of December, 1929, and the fifth day of December, 1931.

First Exception. To the Master's finding of fact that there was an honest difference of opinion between patent counsel representing plaintiff and patent counsel representing defendant as to whether the patent in suit was actually infringed.

Second Exception. To the Master's conclusion of law that the defendant was not a conscious and deliberate infringer of the patent in suit.

Third Exception. To the Master's failure to find that the record before the Master fails to disclose any "standard of comparison" with laminated glass.

Fourth Exception. To the Master's failure to find that there is no proof that the defendant's patents contributed anything to the profits derived from the infringing sales

of laminated glass or added anything to the salability or usefulness of the laminated glass sold in infringement of the patent in suit.

Fifth Exception. To the Master's conclusion of law that in computing manufacturer's cost of the one-eighth inch plate glass in question, defendant is entitled to an allow- [fol. 1075] ance for the use of patented processes and apparatus owned by it and used in the manufacture aforesaid.

Sixth Exception. To the Master's failure to conclude, as a matter of law, that since the patent in suit created a new article of manufacture by the use of a new element, the plaintiff as a matter of law is entitled to all the profits derived from infringing sales without apportionment or allowance to the defendant.

Seventh Exception. To the Master's failure to conclude as a matter of law that the comparison of the continuous process with the old process is not the proper standard of comparison in this case.

Eighth Exception. To the Master's failure to conclude as a matter of law that the defendant, being a deliberate and conscious infringer, is not entitled to any allowance for the use of its patents.

Ninth Exception. To the Master's conclusion of law that in computing the manufacturer's cost for one-eighth inch plate glass in question, the defendant is entitled to an allowance for Federal income tax paid by it in the manufacture thereof.

Tenth Exception. To the Master's failure to conclude as a matter of law that the defendant, being a conscious and deliberate infringer, is not entitled to any allowance for amounts paid by it as Federal income tax.

Eleventh Exception. To the Master's conclusion that Federal income tax can not be satisfactorily taken care of in the method suggested by counsel for plaintiff.

Twelfth Exception. To the Master's failure to conclude as a matter of law that an allowance for Federal income tax, if any, should be only on so much of the defendant's [fol. 1076] income or profits which remain after deducting

the allowances for patents, interest on investment and "Special Cutting Loss."

Thirteenth Exception. To the Master's finding that Pittsburgh Plate Glass Company suffered a "Special Cutting Loss" on its sale of the one-eighth inch plate glass in question, amounting to 1.548 cents per square foot in 1928; 1.621 cents in 1929 and 2.590 cents in the first five months of 1930.

Fourteenth Exception. To the Master's failure to find that the figures of 1.548 cents in 1928, 1.621 cents in 1929 and 2.590 cents in the first five months of 1930, constituting the so-called "Special Cutting Loss," were arrived at by using as cost not only the manufacturing and administration cost of 15.590 cents in 1928, 15.837 cents in 1929 and 18.569 cents in the first five months of 1930, but also the allowance for the use of patents of 12.474 cents in 1928, 9.907 cents in 1929, and 9.694 cents in the first five months of 1930, plus interest on investment of 2.553 cents in 1928, 2.021 cents in 1929, 3.482 cents in the first five months of 1930, plus Federal income tax of 2.267 cents in 1928, 2.194 cents in 1929 and 1.395 cents in the first five months of 1930.

Fifteenth Exception. To the Master's failure to specifically find that the so-called "Special Cutting Loss" represents a reduction of expected profit and not an actual manufacturing loss.

Sixteenth Exception. To the Master's conclusion of law that in computing manufacturer's cost of the one-eighth inch plate glass in question, defendant is entitled to an allowance for "Special Cutting Loss."

Seventeenth Exception. To the Master's finding of fact that the selling commissions amounting to $220,742.95 were reasonable and proper expenses.

[fol. 1077] Eighteenth Exception. To the Master's finding that there is no testimony upon which to base a finding of fact that the sales made by the Pittsburgh Plate Glass Company, in the capacity of a jobber, were made at a price sufficient to cover the expenses of the said sales and to reflect a profit.

Nineteenth Exception. To the Master's failure to find that the amount of defendant's selling expenses applicable to profit making sales in this account was $79,344.84.

Twentieth Exception. To the Master's conclusion of law that in computing manufacturer's cost of the one-eighth inch plate glass in question, defendant is entitled to an allowance for interest on its investment.

Twenty-first Exception. To the Master's finding that the hazards connected with the manufacture of laminated glass were such that a considerable amount of the infringing product had to be rejected or "scrapped" in order that a certain volume of salable specimens might be produced.

Twenty-second Exception. To the Master's failure to find that there is no proof in the record to enable him to determine what, if any, loss the defendant suffered in cutting smaller pieces from larger pieces of pyralin.

Twenty-third Exception. To the Master's failure to find that there is no proof in the record to enable him to determine what, if any, loss the defendant suffered in the breakage of glass.

Twenty-fourth Exception. To the Master's conclusion of law that the cost of one-eighth inch plate glass used by the defendant but later resulting in operating losses or returns, should be included in the cost of plate glass used in computing profits or losses.

[fol. 1078] Twenty-fifth Exception. To the Master's failure to conclude as a matter of law that since no selling price for defective laminated glass has been credited to the account, the defendant is not entitled to charge the cost of manufacturing defective laminated glass against the profits made by the sale of good laminated glass.

Twenty-sixth Exception. To the Master's conclusion of law that the defendant is entitled to include "Factory Operating Losses" in its costs, in computing its profits and losses.

Twenty-seventh Exception. To the Master's conclusion of law that the defendant is entitled to charge cost of infringing product returned as defective during the account-

ing period as part of its manufacturing cost in this account.

Twenty-eighth Exception. To the Master's conclusion of law that the defendant is entitled to charge the cost of the infringing product sold during the accounting period but returned as defective subsequent to the accounting period as part of its manufacturing cost in this accounting.

Twenty-ninth Exception. To the Master's failure to find that the manufacturing cost of 427,971-3 square feet of laminated glass returned by customers to the defendant, including the actual cost of one-eighth inch plate glass, plus interest on investment was $434,296.73.

Thirtieth Exception. To the Master's failure to find that the defendant is not entitled to deduct the selling price on the infringing glass returned by customers after the accounting period from the profits which accrued to the defendant during the accounting period.

[fol. 1079] Thirty-first Exception. To the Master's finding that he is unable to determine specific manufacturing costs.

Thirty-second Exception. To the Master's finding that the manufacturing cost, month by month, varied materially with different orders.

Thirty-third Exception. To the Master's conclusion of law that the nature of this accounting is such that specific selling prices cannot be compared with average monthly costs in order to distinguish loss producing sales from profit making sales.

Thirty-fourth Exception. To the Master's conclusion of law that the defendant is entitled to include the sum of $219,036.93 as "Additional Pyralin Losses" in its manufacturing cost during the accounting period.

Thirty-fifth Exception. To the Master's finding that the defendant during the accounting period operated at a net loss in the manufacture and sale of infringing product of $276,857.47.

Thirty-sixth Exception. To the Master's failure to find that the defendant during the accounting period operated

at a profit in the manufacture and sale of the infringing product of $3,124,821.62.

Thirty-seventh Exception. To the Master's failure to conclude as a matter of law that the plaintiff is entitled to recover the sum of $3,124,821.62 as profits.

Thirty-eighth Exception. To the Master's failure to find that the plaintiff suffered a damage in the amount of $127,723.13 caused by its reduction in selling prices brought about by the cut-price competition of the defendant.

Thirty-ninth Exception. To the Master's failure to find that the defendant, Pittsburgh Plate Glass Company made [fol. 1080] a profit of $2,465,562.77 on the building price of one-eighth inch plate glass to its laminated department.

Fortieth Exception. To the Master's failure to conclude as a matter of law that 20 per cent. of the selling price of the manufacturer would be a reasonable royalty under the circumstances in this case.

Forty-first Exception. To the Master's failure to conclude as a matter of law that the plaintiff is entitled to an award of not less than $1,368,160.73 as a reasonable royalty on the infringing laminated glass product manufactured by the defendant during the accounting period, in infringement of the patent in suit.

Forty-second Exception. To the Master's finding that there does not appear to have been a "very substantial demand" for laminated glass during the accounting period.

Forty-third Exception. To the Master's finding that it can hardly be said that the hypothetical questions propounded by the plaintiff conformed with the facts in the case, in so far as they assumed a "substantial demand" or an "easy market" for laminated glass.

Dated February 1, 1934.

Respectfully submitted, Brown, Critchlow & Flick, Attorneys for Plaintiff. Ambrose L. O'Shea, William B. Greeley, of Counsel.

[fol. 1081] IN UNITED STATES DISTRICT COURT

DEFENDANTS' EXCEPTIONS TO MASTER'S REPORT—Filed January 31, 1934

[References are to side folios of this Record. All other references are to pages not contained in this printed Record.]

The defendants except to the report filed herein on the twelfth day of January, 1934, by G. Dixon Shrum, Esq., Special Master, to whom this cause was referred by orders of this Court made and entered on the ninth day of December, 1929, and the fifth day of December, 1931, as follows:

1. The learned Master erred in his twenty-fifth finding of fact (p. 1047):

"25. That a reasonable royalty for the manufacture of laminated glass under the patent in suit during the accounting period was 10¢ per square foot.";

whereas he should have found (1) that the plaintiff was entitled to nominal damages only, (a) because the plaintiff, sustained by the learned Master, refused to permit the defendants to examine the books and records of the plaintiff for the purposes, among others, of showing the plaintiff's volume of business, its costs, profits, losses, rejections, returns, factory operating experience, damages from loss of sales, royalties and operating experience under its licenses to the Ford Motor Company and the Johnston Glass Company, all as more particularly requested, offered, opposed and ruled at pages 671-677, 775-776, 861, and 947-948 of the Record; (b) because, by stautory limitation (35 U. S. C. A., § 70), a reasonable royalty may be awarded only if the plaintiff's damages or the defendants' profits or losses are not susceptible of calculation and determination with reasonable certainty, both of which calculations the learned Master could and did make; (c) be-
[fol. 1082] cause a reasonable royalty is that royalty which one desiring to manufacture and sell the patented article during the accounting period would be willing to pay as a

royalty, and yet be able to make a reasonable profit (Rockwood v. General Fire Extinguisher Co., 37 F. (2d) 62, 66, certiorari denied, 269 U. S. 571), and the learned Master has found that the defendants lost money during the accounting period (Finding No. 19, p. 1047) and has refused to permit an examination of the plaintiff's books, as hereinbefore averred; (d) because no satisfactory process was in existence for the manufacture of the patented product and this had to be developed by the Ford Motor Company and Duplate Corporation at great expense and independently of the plaintiff and its patent (Wibel, 531-532; McCarroll, 549-550, 553-563; Sherts, 417-422, 429-436, 451-458; Clause, 337-342, 346-348, 370-371); (e) because the state of the art was such that neither the plaintiff, its licensees, nor Duplate Corporation could make a satisfactory product without a large percentage of defective product, resulting in rejections, replacements and returns and, as a consequence, increased sales resistance (Wibel, 532-535; McCarroll, 544-547, 549-550, 555-557; Sherts, 442-443; and Downey, 624, 627-628); (f) because the experience of the Ford Motor Company (Wibel, 528-541; McCarroll, 542-563), as licensee of the plaintiff, had been so unfortunate in the quality of the product produced as to greatly increase the difficulty of interesting the general public or the automobile companies in the use or purchase of laminated glass (Downey, 619, 624, 627-628; McLarty, 634-635; Wherrett, 867-868; Higgins, 801-803); (g) because difficulties of price due to the competition in price of the patented product with sheet and plate glass (Higgins, 789-790, 813-814, 874; Wherrett, 862; Fisher, 563-568; Downey, 619-624, 627-628), the lack of public interest in or demand for laminated glass in auto- [fol. 1083] mobiles (Edwards, 167-169; McLarty, 633-635; Higgins, 482-485; Wibel, 530; Fisher, 563-568; Downey, 619-624, 627-628; cf. Caulfield, 231-233, 306), and the unfavorable impression created upon the public by the laminated windshields on Ford cars (f, supra), and the reluctance of the automobile manufacturers to create a demand by advertising to the public the dangers inherent in the unpatented windshield and window glass (Blackmore, 606-608), there was, until created by the efforts of the defendants, practically no market for laminated glass; and (h) because the learned Master was improperly influenced by the belief that the defendants had substantially driven the plaintiff

out of business (Report, 1041-1043), a consideration which was neither correct (see fifth exception) nor relevant; or, in the alternative, (2) that in no event should a reasonable royalty exceed one-half cent a square foot (a) because the only testimony predicated upon the facts as the Master found them was to the effect that a reasonable royalty would not be in excess of one-half cent per square foot (Harness, 574 to 596; and Blackmore, 596 to 614), after giving due consideration to the supposed advantages to the plaintiff of its license to the Ford Motor Company, as enumerated at pages 1039-1040 of the Master's report (Harness, 578, 592, 595-596; Blackmore, 596); (b) because the learned Master appears to have given no consideration to the fact that the patent expired on May 9, 1933, an important factor (Harness, 584); (c) because the recommended reasonable royalty is improperly predicated in part upon plaintiff's testimony concerning a license to the Johnston Glass Company (Exhibit 24; and Haskell, 199), inasmuch as (i) that license covered eight patents, and contained covenants concerning volume and price of sales not comparable to the instant case, and (ii) there was no testimony of sales or [fol. 1084] royalties under that license other than that they were small (Haskell, 199), which the Master recognized as unsatisfactory at page 1030 of his report; (d) because the recommended reasonable royalty is twice as high as royalty paid by the Ford Motor Company on nine patents, including the one in suit, and two trade-marks (Exhibit "A"), and because this royalty paid by the Ford Motor Company also included free license for one-half of the licensee's requirements and a manufacturer's profit (Master's report, 1030), which, when segregated, leaves no more than one-half cent a square foot as royalty (Harness, 584-587, 595-596; Blackmore, 602-604, 613-614); (e) because the recommended reasonable royalty is predicated in part upon the Master's twenty-fourth finding of fact to the effect that the plaintiff at the time the infringement began had established a market for laminated glass, while the Master's report (pages 1036-1042) shows that the market thus established was trifling in size, and all of the testimony is to the same effect (Edwards, 167-170; Caulfield, 231-233, 243, 306-308; Haskell, 191-192, 194-195; Hunt, 202; Higgins, 482-487, 789-790, 803-805, 813-814, 874-877; Wherrett, 862, 867-868; Wibel, 529-531; Fisher, 563-568; Downey, 617-628;

McLarty, 633-635, 637). The Master's discussion is found at pages 1034-1043 of his report.

2. The learned Master erred in his eighteenth conclusion of law (p. 1049):

"18. That plaintiff is entitled to an award of $414,120.70 as royalty on the infringing laminated glass manufactured by defendant during the accounting period in infringement of the patent in suit.";

whereas he should have ruled, on the basis of the reasons given in support of the first exception, that the plaintiff was entitled to nominal damages only.

[fol. 1085] 3. The learned Master erred in refusing defendants' application to examine the books and records of the plaintiff, said ruling being as follows (R. 775-776):

"The Master: Defendant's application to examine the books and records by accountants employed by defendants as read into the record on Tuesday morning by Mr. Smith, covering all details in connection with the matters mentioned in said application, is refused and the defendant is ordered to proceed at once with its case.";

and repeated at page 948; whereas the Master should have permitted this examination for the purposes enumerated in the offer at pages 671-676 (and see pages 947-948, 861), the examination being material on the questions of (1) whether a reasonable royalty should be awarded, and, if so, how much, inasmuch as the examination would have disclosed plaintiff's volume of business, its costs, profits, losses, rejections, returns, factory operating experience, damages from loss of sales, royalties and operating experience under its licenses to the Ford Motor Company and the Johnston Glass Company, (2) whether the plaintiff suffered damage in the competition of Duplate Corporation, and, if so, its extent, and (3) the propriety of Duplate Corporation's items of expense which are challenged by the plaintiff, inasmuch as it would show that the plaintiff had comparable losses.

4. The learned Master erred in his twenty-fourth finding of fact (p. 1047):

"24. That the plaintiff, at the time the infringement began, had established a market for laminated glass.";

whereas he should have found, in accordance with pages 1036-1043 of his report, that the plaintiff had not established a substantial market for laminated glass (Edwards, [fol. 1086] 167-170; Caulfield, 231-233, 243, 306-308; Haskell, 191-192, 194-195; Hunt, 202; Higgins, 482-487, 789-790, 803-805, 813-814, 874-877; Wherrett, 862, 867-868; Wibel, 529-531; Fisher, 563-568; Downey, 617-628; McLarty, 633-635, 637), and that the task of doing so was inherently difficult (Blackmore, 606-608). The learned Master's discussion is found at pages 1036-1041 of his report.

5. The learned Master erred in the following portion of his report (pp. 1041-1042):

"When defendant entered the field it established prices considerably lower than those of the plaintiff, which naturally led considerable business to leave the plaintiff and go to the defendant, and also caused a reduction in the plaintiff's selling prices. While the Master has not been able to approximate, mathematically, what sales were lost by the plaintiff on account of the infringement, he is satisfied that the price policy of the defendant substantially drove the plaintiff out of the laminated glass business, and that, although other companies were engaged in the laminated glass business, their competition in the manufacture of laminated glass for automobiles was negligible.";

whereas he should have said (1) that the plaintiff's business, except that under its license to the Ford Motor Company, was inconsiderable in extent (Report, 1036-1039; Caulfield, 231-233, 306-308; Downey, 616; Higgins, 876-877), (2) that the portion of it which shifted from the plaintiff to the Duplate Corporation (and this did not include the Ford Motor Company business) could not have been held by the plaintiff in any event, both because of the attitude of the automobile manufacturers toward the plaintiff's prices (Fisher, 564-566; Downey, 618-628; Higgins, 482-488, 789-792), and because of the competition of third parties [fol. 1087] (Haskell, 198; Wherrett, 868; Higgins, 794-795, 802-809), whose competition was formidable, and was, in one instance, that of a company whose volume of sales exceeded that of Duplate Corporation for the latter portion

of the accounting period (Higgins, 809-810) and which initiated most of the price reductions (Wherrett, 868; Higgins, 794-795), and (3) that there was no evidence that the plaintiff quit business for any reason except that it obtained a satisfactory price for its assets (McHenry, 666-671), and still less is there any evidence that the defendants drove the plaintiff out of the laminated glass business.

6. The learned Master erred in his second conclusion of law (p. 1047):

"2. That Pittsburgh Plate Glass Company is entitled to credit for only the manufacturer's cost of the one-eighth inch plate glass used by it, or sold by it to and used by Duplate Corporation, in making laminated glass in infringement of the patent in suit.";

whereas he should have ruled that the defendants were entitled to credit for the purchase price paid by Duplate Corporation to Pittsburgh Plate Glass Company for one-eighth inch plate glass used in making laminated glass in infringement of the patent in suit (1) because the Pittsburgh Plate Glass Company was not called upon under the interlocutory decree of this Court dated December 5, 1931, to account for any profits, gains or advantages other than those accruing to it in the manufacture of infringing laminated glass; (2) because the plate glass, admittedly sold by the Pittsburgh Plate Glass Company to Duplate Corporation at the prevailing market price or below it (McHenry, 60; Higgins, 805-806; Wherrett, 866-867), being a marketable commodity (Master's report, 1055, 1063; Higgins, 474-482, 486-496; cf. report, 1006-1007), in which the plaintiff had no patent [fol. 1088] right or other interest, should be charged into the account of the defendant Duplate Corporation at the market price thereof or the price paid by Duplate Corporation to Pittsburgh Plate Glass Company therefor, depending upon which was lower (Barber Asphalt Paving Co. v. Standard Asphalt & Rubber Co., 30 F. (2d) 281, 284, certiorari denied, 278 U. S. 659); (3) because Duplate Corporation could not be compelled to take the cost of plate glass to the Pittsburgh Plate Glass Company as its cost in this accounting without disregarding the separate corporate entities of the two companies, and this could not be done because (a) Duplate Corporation was owned in equal shares by Pittsburgh Plate Glass Company and du Pont

Viscoloid Company (Master's report, 1001-1002; trial stipulation, 25; Clause, 391; McHenry, 55), (b) the management of Duplate Corporation was equally divided between the two stockholders (McHenry, 60-64, 79-80; Exhibit 21), and (c) separate books were kept by all three companies (McHenry, 64-78, 80-82); (4) because he erroneously assumed (Report, 1055), without supporting testimony, that the Pittsburgh Plate Glass Company would have lost plate glass sales had not Duplate Corporation manufactured laminated glass, whereas uncontradicted subsequent testimony was to the effect that sales of laminated glass by Duplate Corporation were simply replacing sales of plate glass by Pittsburgh Plate Glass Company, and had sales of laminated glass not been made by Duplate Corporation the Pittsburgh Plate Glass Company would have sold plate glass to the same customers in the same amounts, with but possibly one exception (Wherrett, 868-869; Higgins, 808-810), and it is undisputed that the Pittsburgh Plate Glass Company did and would have sold plate glass to third parties manufacturing laminated glass (Higgins, 487-490; Edwards, 159-161; apparently conceded in Master's report, [fol. 1089] 1055), as it is likewise established that laminated glass was being sold by Duplate Corporation because of the sales efforts of its sales agent, Pittsburgh Plate Glass Company, and not because of the plaintiff or because of the intrinsic merit of the product (Higgins, 482-487, 789-790; Fisher, 564-565; Downey, 620-621, 826-828); (5) because in assuming (Report, 1058-1059) that unless he allowed plate glass profits to the plaintiff it would be possible for an infringer to sell a patented article at a loss and make up its profit on the marketable unpatented raw material, he ignored the undisputed testimony, both before and after his ruling, to the effect that the defendants were doing no such thing in the instant case, but were rather selling the infringing product at the best obtainable price (Higgins, 789-790, 792-794, 804-805, 822-823, 482-487; Fisher, 564-566; Downey, 619-623, 626-628; McLarty, 629-631, 634-635; cf. Edwards, 168-169) and a later ruling by the Master (595) was predicated on this position; (6) because the plate glass of the Pittsburgh Plate Glass Company was manufactured under twenty-six patents (Clause, 748-768), in none of which the plaintiff had an interest; and (7) because the owner of a patent is not entitled to recover profits resulting

only indirectly from infringement. The argument of the learned Master in support of his ruling is found at pages 1006-1010 of his report and in Appendix "A" thereto.

7. The learned Master erred in entering the following order (R. 527):

"On application of the plaintiff for order on the defendant, Pittsburgh Plate Glass Company, requiring it to file an additional account showing its costs of glass used by it and its co-defendant, Duplate Corporation, in the manufacture of non-shatterable glass, it is ordered that the defend- [fol. 1090] ant file such an account with the Master within four weeks from the date of the decision of the Court, in the event that the Court shall decide that such an account shall be filed.";

pursuant to which, this Court on June 10, 1932, ordered such an account to be filed, without prejudice to the ultimate determination of its final accounting liability; whereas the learned Master should have ruled that such an account need not be filed for the reasons enumerated in the sixth exception.

8. The learned Master erred in his nineteenth finding of fact (p. 1047):

"19. That defendant, during the accounting period, operated at a net loss in the manufacture and sale of the infringing product of $276,857.47.";

whereas he should have found (1) that, for the reasons enumerated in the sixth exception, the defendant Duplate Corporation during the accounting period suffered a further net loss of $712,998.65 (computed by contrasting the computation based on sales price, as set forth in the contested items in Appendix "B," page 1, of the Master's report, with his allowance appearing on page 2 of the same appendix) in the manufacture and sale of the infringing product, this additional loss representing the spread between the so-called manufacturer's cost of the plate glass sold by the Pittsburgh Plate Glass Company to Duplate Corporation and the sales price at which this plate glass was sold by Pittsburgh Plate Glass Company to Duplate Corporation; (2) that if the foregoing portion of this exception is disallowed, he should have given Duplate Cor-

poration an additional credit of $318,403.33, representing loss to the Pittsburgh Plate Glass Company in selling expense over and above commissions received from Duplate Corporation (Exhibit "BB"; McHenry, 783-785, 837-840, [fol. 1091] 919-929, 933-938; see Master's discussion at p. 1014 of his report); and (3) regardless of the ruling on the foregoing portions of this exception, he should have allowed as an additional item of expense the sum of $72,060.42, which represented, as he found (Report, p. 1005), loss suffered by Duplate Corporation after the accounting period in reimbursing distributors for making replacements of defective laminated glass manufactured during the accounting period and guaranteed as to quality by the defendants (Exhibit "X"; McHenry, 777-780, 884-886, 891-901, 929-933). His rejection of this loss appears at page B-2 of his report.

9. The learned Master erred in his third finding of fact (p. 1044):

"3. That the defendant was advised by patent counsel that if it dehydrated its gelatin by means of a dehydrating agent so as to leave it substantially free from moisture, it would infringe.";

whereas he should have found that the defendants were advised by patent counsel that they did not dehydrate their gelatin by means of a dehydrating agent (Master's report, 1002; Bradley, 825-836, and particularly 828-830) and that, as a consequence, they were advised that they did not infringe the plaintiff's patent. The learned Master's discussion and finding of good faith is found at pages 1002-1003 of his report. See also Finding No. 4 and Conclusion No. 1 (Report, 1044, 1047).

10. The learned Master erred in his twenty-first finding of fact (p. 1047):

"21. That plaintiff had the manufacturing facilities, personnel, and capital to handle the sales made by Duplate Corporation, as well as its own.";

[fol. 1092] whereas he should have found that the plaintiff did not have the manufacturing facilities, personnel or capital to handle the sales of infringing products made by Duplate Corporation, as well as its own (Haskell, 185;

Caulfield, 229-232, 306; McCarroll, 544-547, 549-550, 561-563; Wibel, 532-534; cf. Clause, 324-325; Sherts, 412-414). The learned Master's discussion is found at page 1031 of his report.

11. The learned Master erred in his twenty-second finding of fact (p. 1047):

"2. That the plaintiff suffered a loss of $2,807.89 due to price reductions forced upon it by the price policy of the defendant.";

whereas he should have found (1) that the plaintiff failed to prove (Exhibit 28; Caulfield, 304-305; Edwards, 165-167; Haskell, 179-180; Exhibits 11-14) any loss suffered by it due to price reductions forced upon it by the price policy of the defendants; (2) that even if the plaintiff established a loss, it appears that it was brought about by the competition of third parties (Haskell, 198; Wherrett, 868; Higgins, 794-795, 808; Judson, 149) and by the attitude on prices of the purchasing automobile companies (Fisher, 563-566; Downey, 618-624; Higgins, 482-487, 788-793); and (3) that the plaintiff, as a matter of law, was not entitled to both an award of damages for reduction in selling price and an award of a reasonable royalty. The learned Master's discussion is found at pages 1031-1034, and his computation is in Appendix "D" to his report.

12. The learned Master erred in his seventeenth conclusion of law (p. 1049):

"17. That plaintiff is entitled to an award of $2,807.89 due to price reductions forced upon it by the infringement.";

[fol. 1093] whereas he should have ruled, for the reasons set forth in the eleventh exception, that the plaintiff was not entitled to an award of any sum for damages due to price reductions forced upon it by the infringement.

William Watson Smith, Leon E. Hickman, Smith, Buchanan, Scott & Gordon, Solicitors for Defendants.

January 31, 1934.

IN UNITED STATES DISTRICT COURT

NOTICE AND MOTIONS FOR JUDGMENT—Filed March 27, 1934

Please take notice that on the pleadings, proof, testimony and exhibits, the report of the Master, G. Dixon Shrum, filed herein on or about the twelfth day of January, 1934, and all other papers and documents in this case, this Court will be moved at a term thereof, to be held at the General Post Office Building, in the City of Pittsburgh, State of Pennsylvania, on Tuesday, April 3, 1934, at ten o'clock in the forenoon of that day, or as soon thereafter as counsel can be heard:

(1) That the exceptions to said report of said Master filed by the defendant herein, and each and all of them, be overruled.

(2) That the exceptions to said report of said Master filed by plaintiff herein, and each and all of them, be allowed.

(3) That the profits stated by the Master in his said report, as changed or amended by this Court, be awarded to the plaintiff and/or that the damages stated by the Master and as changed or amended by this Court, be increased [fol. 1094] to not exceeding three times the amount as so fixed by this Court.

(4) That the amounts paid to the Master by the plaintiff as a fee for his services, and the amounts paid to the stenographer for furnishing the Master with the transcript of the testimony, be allowed to the plaintiff as costs.

(5) That interest be allowed the plaintiff on the profits and/or damages from the end of each year of the accounting period.

(6) For final judgment herein with costs and disbursements against the defendant and for such other and further order, judgment and relief as to the Court may seem just and equitable.

Dated Pittsburgh, Pa., March 17, 1934.

Brown, Critchlow & Flick, Attorneys for Plaintiff.
First National Bank Bldg., Pittsburgh, Pa.

IN UNITED STATES DISTRICT COURT

MOTION TO DISMISS PLAINTIFF'S EXCEPTIONS—Filed April 3, 1934

To the Honorable the Judges of said Court:

And now, this third day of April, 1934, come the defendants by Smith, Buchanan, Scott & Gordon, their solicitors, and move to dismiss the plaintiff's exceptions to the report of the Master in the above case on the ground that said exceptions are unfounded and insufficient, both in form and substance.

Smith, Buchanan, Scott & Gordon, Solicitors for Defendants.

[fol. 1095] IN UNITED STATES DISTRICT COURT

OPINION ON DEFENDANTS' APPLICATION FOR A REVIEW OF AN INCIDENTAL RULING OF THE SPECIAL MASTER IN THE ACCOUNTING PROCEEDING—Filed June 10, 1932

SCHOONMAKER, J.:

This is a patent-infringement case which was referred by this court to a special master by an interlocutory decree, dated December 9, 1929. The case thereupon proceeded before the master by the taking of testimony which elicited certain facts. In view of the facts educed before the master, the plaintiff filed a supplemental bill against the defendant, Pittsburgh Plate Glass Company, charging that Duplate Corporation, the defendant in the original bill, was a mere form behind which the supplemental defendant, Pittsburgh Plate Glass Company, accomplished its infringement, and praying that the Pittsburgh Plate Glass Company be adjudged responsible for the doings and acts of Duplate Corporation, and be compelled to account for and pay to the plaintiff all profits, gains, and savings made by the said Pittsburgh Plate Glass Company and the actual damages suffered by the plaintiff from the infringement by Pittsburgh Plate Glass Company. (Plaintiff's Master's Exhibit 29.)

Pittsburgh Plate Glass Company duly answered said supplemental bill, and in due course a supplemental interlocu-

tory decree on said supplemental bill and answer was entered.

The said supplemental decree, dated December 5, 1931, among other things, ordered and decreed that the plaintiff recover from Pittsburgh Plate Glass Company "the profits, gains, and advantages which the said supplemental defendant has received or made, or which have accrued to it from its said infringement of said Letters Patent, together with the damages suffered by the said plaintiff from such in-
[fol. 1096] fringement," and decreeing further that Pittsburgh Plate Glass Company shall be jointly and severally liable for any and all recoveries adjudged against Duplate Corporation by way of profits, damages, costs, or otherwise.

The said supplemental interlocutory decree further ordered that the special master theretofore appointed by this court in the accounting proceeding then pending before him should "ascertain, take, state, and report to this court an account of the gains, profits and advantages which the defendant, Pittsburgh Plate Glass Company, has received or which have accrued to it from said infringement upon the exclusive rights of the plaintiff under claim 12 of said letters patent, and also all damages which the plaintiff has suffered because of the said supplemental defendant's infringement upon claim 12 of said letters patent of the United States No. 1,182,739."

The said supplemental interlocutory decree further ordered that in the accounting then being proceeded with, the plaintiff should have the right to examine the "officers, servants, agents and employees of Pittsburgh Plate Glass Company and also to cause the production and examination of the books, vouchers, records and documents of the defendant, Pittsburgh Plate Glass Company," and that the plaintiff "shall have the necessary process of the court to compel such attendance and production of books, vouchers, records and documents of said defendant, Pittsburgh Plate Glass Company, before the master at such times and places as the master shall from time to time direct."

The master then proceeded with the accounting and came to a point where he directed the defendant, Pittsburgh Plate Glass Company, to file an account revealing its profits on one-eighth-inch plate glass sold to the defendant, Duplate Corporation, during the infringing period.

[fol. 1097] The Pittsburgh Plate Glass Company took ex-

ception to this order, and now asks the court to pass on the question of its liability to account for these profits, before proceeding further with the accounting before the master. This is an unusual request.

The usual and orderly way to present the questions here raised is upon the exceptions to the master's report at the conclusion of the accounting, unless there be a case of extreme hardship to a defendant, which might cause the court to review an incidental ruling of a special master. The rule and test to be applied in such cases is well stated by District Judge Wallace in Welling v. LaBau, 32 Fed. 293 (295), as follows:

"The practice which has been pursued here is not to be commended. The regular and orderly way to test the question of the extent of the defendant's infringement, is upon exceptions to the master's report at the conclusion of the accounting. It is only in a case of extreme hardship to a defendant that the court should be asked to review an incidental ruling of the master, in the course of the accounting, which can be reviewed upon exceptions to his report. There was enough here, probably, to justify the attempt which has been made, but the hardship to the defendant is a less evil than the danger of reaching a wrong decision upon the merits. It is more judicious to require the accounting to proceed in the ordinary way. When the master's report is made, if it is excepted to, his findings of fact will appear, and the court can review them intelligently, and with a stronger probability of reaching a correct result than is now possible."

This appears to be in accordance with the practice in this Circuit: Hoe v. Scott, 87 Fed. 220 (CC. D. N. J. Kirkpatrick, D. J.); Rollman Mfg. Co. v. Universal Hdwe. Co., 218 Fed. 651 (653).

We have carefully reviewed the proceedings before the master, and can see no extreme hardship imposed upon the [fol. 1098] Pittsburgh Plate Glass Company in requiring them to show the cost of the plate glass that went into the infringing structure. We can see how that item might be a very necessary factor in determining the accounting liability of the Pittsburgh Plate Glass Company in the infringing transaction, especially in view of the testimony before the master that the Duplate Corporation sold the in-

fringing product at much below cost, if in computing the cost, one took the cost price of the glass at its invoice from the Pittsburgh Plate Glass Company.

We do not pass any judgment now on the exception made by the Pittsburgh Plate Glass Company as to its final accounting liability, but shall leave that question open for a full and careful consideration when we get the completed report of the master.

In the meantime, the Pittsburgh Plate Glass Company will comply with the accounting order of the special master.

Let an order be submitted, denying the Pittsburgh Plate Glass Company's application, without prejudice to its right to renew the same on the filing of the report of the special master.

IN UNITED STATES DISTRICT COURT

ORDER DENYING APPLICATION FOR REVIEW OF INCIDENTAL RULING OF MASTER—Filed June 22, 1932

This cause having come on to be heard, it is

Ordered that the application of Pittsburgh Plate Glass Company for a review of the incidental ruling of the Special Master in the accounting proceeding, calling on the Pittsburgh Plate Glass Company to submit the cost of its one-eighth-inch plate glass be and the same is hereby denied without prejudice, however, to the rights of the Pittsburgh Plate Glass Company and/or Duplate Corporation, and [fol. 1099] each of them, to file such exceptions as they, or either of them, may be advised to the whole or any part of any final report of the Master.

Dated June 22, 1932.

By the Court, U. S. D. J.

Approved as to form this twenty-first day of June, 1932.
Marshall A. Christy, Solicitor for Defendants.

IN UNITED STATES DISTRICT COURT

OPINION ON DEFENDANTS' PETITION WITH RESPECT TO PRODUCTION AND EXAMINATION OF CERTAIN BOOKS AND RECORDS OF PLAINTIFF—Filed October 21, 1932

SCHOONMAKER, J.:

This case is now before the court on defendants' petition for an order directing the master before whom the case is pending, to order the plaintiff to produce its books and records for examination by the defendants. The defendants presented this application to the master, who denied it.

This is an accounting proceeding in a patent case. The special master has not filed any report therein. We have no request from him for a special review of this ruling. As we pointed out in an opinion filed in the instant case on June 9, 1932, the court ought not to be asked to review an incidental ruling of a special master, except in a case of extreme hardship to a defendant.

[fol. 1100] We cannot find that the refusal of the special master to require the plaintiff to submit its books for examination by defendants, presents such a case of extreme hardship as would require us to rule at this time on the correctness of the special master's action. We could not, at this time, pass upon this ruling intelligently without carefully reading and considering all of the testimony thus far taken before the special master, in order to determine whether or not anything of evidential value in this case could be found in the plaintiff's books. We can conceive that, if the plaintiff had offered evidence in the case showing loss of profits in its business as an element of damage to be recovered in this case against the defendants, an examination of plaintiff's books, in order to determine the accuracy of the computation of plaintiff's profits, might be proper.

We can, however, see no hardship in letting this matter rest until the final report of the special master. If his report is then excepted by the defendants in this particular, we could then more readily and properly pass on the exception, having before us the complete report of the special master, and the evidence taken before him. If we then find the master to have been in error in not permitting defendants to examine the plaintiff's books, the case could then be referred back to the special master to take further testimony. We cannot see that this will entail undue hardship on the defendants.

The defendants' petition will be denied at this time, without prejudice, however, to the right of defendants to raise the same question by exception to the master's report.

An order may be submitted accordingly.

[fol. 1101] IN UNITED STATES DISTRICT COURT

ORDER DENYING PETITION FOR ORDER DIRECTING PLAINTIFF TO PRODUCE CERTAIN BOOKS AND RECORDS—Filed October 31, 1932

This case having now come before this Court on defendants' petition for an order directing the Master before whom this case is pending to order the plaintiff to produce its books and records for examination by the defendants; it is

Ordered and adjudged that the defendants' petition be and the same is hereby denied, without prejudice, however, to the right of defendants to raise the same question by exception to the Master's final report.

Dated: October 31, 1932.

F. P. Schoonmaker, U. S. D. J.

Service of a copy of the foregoing order is hereby acknowledged this twenty-ninth day of October, 1932. Approved as to form.

Marshall A. Christy, Solicitor for Defendants.

[fol. 1102] IN UNITED STATES DISTRICT COURT

OPINION (1) ON EXCEPTIONS TO THE MASTER'S REPORT; (2) ON THE PLAINTIFF'S MOTION TO ASSESS INTEREST ON THE DAMAGE AWARD; (3) ON PLAINTIFF'S MOTION TO ASSESS THE COSTS OF REFERENCE TO DEFENDANTS—Filed May 1, 1934

SCHOONMAKER, J.:

This case now comes to the court: (1) On exceptions to the final report of the master, G. Dixon Shrum, Esq., appointed to take and state an account of the profits derived and the damages sustained by the plaintiff by reason of infringements by defendants of Letters Patent 1,182,739, for the manufacture of strengthened glass; (2) On the motion of the plaintiff to assess interest on the damages allowed; and (3) On the plaintiff's motion to assess against the defendants the cost of reference to the special master.

Two decrees were entered in this case: One on December 9, 1929, against the defendant Duplate Corporation, the original defendant in this suit for the infringement of the patent; and the other on December 5, 1931, against the Duplate Corporation and the Pittsburgh Plate Glass Company, the latter company being brought into the case on supplemental bill charging the Pittsburgh Plate Glass Company to be a contributory infringer.

This decree of December 5, 1931, held that both defendants were jointly and severally liable to account for the costs, profits, and damages arising from infringement of this patent.

The master found that the defendants had received no profits out of the manufacture and sale of infringing glass, showing by Appendix B attached to his report under heading "Statement of Account Per Finding of Special Mas- [fol. 1103] ter," a net loss to the defendant on the sale of infringing glass of $276,857.47. The master did find, however, that the plaintiff had suffered damage, and assessed the same on the basis of a royalty of 10c per square foot on the infringing laminated glass, the total amount being $414,120.70. In addition to that, the master found that the plaintiff had suffered damage in the sum of $2,807.89 due to price reductions forced upon the plaintiff by the infringement of the patent in suit. This makes the total award of damage $416,928.59.

Both the plaintiff and the defendants have filed exceptions to this report.

The plaintiff's exceptions are forty-three in number. The defendants have moved to dismiss them, because it is alleged that they do not conform to the proper equity practice, in that they are general assignments of error without specific reference to what the master should have found in lieu of the findings complained of.

The exceptions, as filed by the plaintiff, do not seem to meet the requirement laid down by the Supreme Court in Sheffield and Birmingham Coal, Iron and Railway Company v. Gordon, 151 U. S. 285, 289, 291. But as plaintiff's counsel in their argument in support of these exceptions largely raise only questions of law as to the proper method of computation of the profits and loss and of damages arising out of the sale of infringing glass, we will deny this motion to dismiss.

These forty-three exceptions filed by the plaintiff raise, as we look at it, practically three questions: (1) Are the defendants wilful and deliberate infringers; (2) Did the master adopt and use in his statement of profits on the sale of infringing glass a proper basis for computing the cost of manufacture and the deductions that the defendants should be permitted to make in computing profits; (3) Did the master correctly compute the general damages awarded to the plaintiff.

[fol. 1104] The defendants' exceptions are twelve in number, and relate largely to the damage items awarded to the plaintiff, it being the contention of the defendants that the evidence in this case before the special master would only justify the award of nominal damages.

The question of wanton and deliberate infringement we must resolve in favor of the defendants. It appears by the evidence that the defendants had notice of the plaintiff's patent and took the advice of legal counsel who not only examined the plaintiff's patent, but the plaintiff's process in the manufacture of laminated glass, after which defendants' counsel gave to the defendants his legal opinion that their method of manufacturing strengthened glass did not infringe the plaintiff's patent. We find nothing in the evidence which impugns the good faith of the defendants in seeking the advice of their counsel or the good faith of counsel in studying the plaintiff's process to determine whether there was infringement. In that we are satisfied that both defendants and their counsel were acting in good faith in the matter of infringement and in believing that their process did not infringe the plaintiff's patent. We conclude therefore that the defendants were not wilful and deliberate infringers.

We go next to the master's computation of profits and losses. There seems to be no dispute in the case over the correctness of the computation of the amounts; there is no dispute over the correctness of the figures. The dispute is over the question of whether items deducted are properly and legally allowable as deductions from the sale-price, in order to determine profits. The plaintiff's objection to these deductions allowed by the master may be grouped and discussed under the heads: (a) Comparisons of average costs and specific selling prices; (b) Factor-operating losses (rejects and returns); (c) Additional

pyralin losses; (d) Allowance for use of defendants' patents; (e) Special cutting losses; (f) Federal income tax; [fol. 1105] (g) Selling commissions; (h) Interest on investment.

(a) Comparison of Average Costs and Specific Selling Price.—The master found that this was not a case in which it would be permissible to state an account of profits by offsetting the monthly average costs per square-foot unit against the price, for which the glass was sold. We agree with the master in his conclusions that the profits of the infringing sales are not to be computed in the way contended by the plaintiff. To determine truly the profits or losses, sales-prices must be compared with specific costs of items of manufacture of the infringing article. The defendants were engaged in a regular and continuous business during the period of these operations in the manufacture of infringing glass. In this continuous business, the infringing glass cannot be treated separately.

We believe Judge Thomson of this court, in MacBeth Evans Glass Co. v. L. E. Smith Glass Co., 21 Fed (2) 553, 555, thus correctly stated the rule to be applied to infringements of this character. This opinion of Judge Thomson was approved by the Circuit Court of Appeals of this Circuit in MacBeth-Evans Glass Co. v. L. E. Smith Glass Co., 23 Fed. (2) 459.

(b) Factory-Operating Losses—(Rejects and Returns).—The master has found that a considerable amount of laminated glass had to be turned out only to be rejected or returned in order that a certain volume of perfect specimens might be sold, and has allowed these rejects and returns as operating losses unavoidably connected with the manufacture of good finished product, and as necessary elements in the cost of production of a good product. We agree with the master in his conclusion, and in so doing, we are again following Judge Thomson in the conclusion announced by him in MacBeth Evans Glass Co. v. L. E. Smith, 21 Fed. (2) 553, where Judge Thomson held in [fol. 1106] a glass-lens case that credit must be given as a part of the cost of manufacture, for defective-lenses, loss from bad debts, discounts, and allowances reasonably incident to the business in order that the defendants be charged only with the profits actually made.

Cases cited for the plaintiff in opposition to these cases we do not think are controlling, because they hold merely that an unsold inventory at the end of the accounting period cannot be taken as a loss in the manufacturing loss in accounting. In a case where there is a series of isolated infringements, loss-producing sales cannot be deducted from profits in the accounting on the sales where there were profits made; and losses on experimental products cannot be deducted in accounting. We recognize the correctness of the rule in these cases; but we think they have no application to the facts of the instant case, where the defendants are only seeking credit for losses actually accruing, while the infringing product is being manufactured in the carrying on of a continuous business.

(c) Additional pyralin losses.—The contention of the plaintiff cannot be sustained as to this item. The objection is made, as we view it, in line with the position that the defendants are entitled only to the cost of the elements entering into profitable sales. We have already pointed out, in our view of this continuous business that such an arrangement cannot be properly made in this case, for the pyralin that was used in glass that did not turn out perfectly was as much a cost of production as any other part of the factory operation.

(d) Allowance for use of Patents.—The defendants, in the manufacture of laminated glass, used in their process of producing glass that entered into the laminated prod- [fol. 1107] ucts, some twenty-six patents of their own. The master has made allowance in this accounting for the use of these patented processes. The plaintiff objects to this allowance, because it is urged that laminated glass is so unique that the plaintiff's patent practically contributed everything to the salability of the products, and that the defendants' patent had nothing to do with it. We have reviewed the evidence on this subject, and we are of the opinion that the master correctly ruled the case. It appears to us from the testimony that the defendants' patented process was a very large factor in the saving of manufacturing costs which would permit the sale of laminated glass in competition with other glass. During the infringing period, laminated glass was competing with ordinary plate-glass windshields, and must of course be offered

to the market at a price which would make them salable in comparison with ordinary plate-glass. If the defendants had been paying royalty on these twenty-six patents that were involved in their process of manufacture, that payment, of course, would have been an allowable deduction. We can see no distinction if they themselves happened to own the patents. We believe they should be entitled to a reasonable royalty-allowance on account of their patents. The findings of the master in this regard are approved by the court.

(e) Special Cutting Losses.—This special cutting loss allowed by the master arose from the adjustment necessary to translate the average profit on ⅛" plate-glass into the specific profit realized by the Pittsburgh Plate Glass Company on its sales to the Duplate Corporation, as the master found. The glass furnished by the Pittsburgh Plate Glass Company to the Duplate Corporation for the manufacture of infringing glass resulted in unusual cutting losses in view of the fact that the orders of [fol. 1108] the Duplate Corporation were confined almost entirely to windshield size. We believe the master has correctly ruled on this phase of the controversy, because of the fact that the orders from the Duplate Corporation to the Pittsburgh Plate Glass Company were for quantities of glass of one size, with the result that there were additional cutting losses in cutting glass of this size out of the original sheets. We shall confirm the master in this ruling.

(f) Allowance for Federal Income Tax Actually Paid.—The plaintiff argues that the income tax actually paid by the defendants should not be allowed, because the defendants were deliberate infringers. On this objection we have already ruled that the defendants are not deliberate infringers. The next argument advanced by the plaintiff against the allowance of this item is the fact that a special cutting loss and interest on the investment were not taken into consideration in the computation of the tax. We do not think we can properly go into that. The tax actually paid, whatever the method of computation by the Government, enters into the determination of profits and losses. As Judge Woolley pointed out in MacBeth v. L. E. Smith Glass Company, 23 Fed. (2) 459, 463, a book profit is not a

profit actually made when the Government takes a part of it as a tax. In this allowance, we concur in the master's ruling.

(g) Selling Commission.—The infringing laminated glass was sold by the defendant, the Pittsburgh Plate Glass Company, at a commission of 5 per cent. on the sales in a period up to January 1, 1929, and 3 per cent. thereafter. These commissions computed at that rate amount to $220,742.95. The plaintiff's attack on the allowance of these commissions seems to be based on the theory that the Pittsburgh Plate Glass Company and the Duplate Corporation are one and the same corporation. Therefore, the [fol. 1109] Pittsburgh Plate Glass Company should not be allowed a commission. The facts of this case, as we view it, do not show that situation. The Duplate Corporation was the corporation engaged in the manufacture of this laminated glass. The glass that entered into the product was furnished by the Pittsburgh Plate Glass Company, which owned 50 per cent. of the capital stock of the Duplate Corporation. The DuPont Viscoloid Company furnished the pyralin that entered into the laminated product, and owned 50 per cent. of the capital stock of the Duplate Corporation. The Pittsburgh Plate Glass Company sold the finished laminated product, and were very properly allowed the commission for that service. The amount seems to be reasonable, and the selling cost we think was a proper item entering into the computation of profits. If there were other sales agents, they would have had to spend that amount at least in the sale of the laminated profits. We shall approve the master's allowance.

(h) Interest on Investment.—The question here involved is whether or not under the facts of this case the master was correct in his conclusions of law to the effect that the defendants are entitled to allowance for interest on investment. We think the facts of this case do not justify us in holding that the defendants have forfeited the right to interest on the investment. They were not deliberate infringers; and we believe that under the ruling authorities they are entitled to a reduction of profits by allowance of interest on invested capital. We confirm the master's ruling in this regard.

This disposes of all the objections and exceptions made

by the plaintiff in regard to profits and losses in this case.

We now proceed to pass on the question of damages as allowed. Both parties are dissatisfied with the damage [fol. 1110] awarded by the special master. We have carefully reviewed the master's findings and the evidence upon the subject of general damage. We have come to the conclusion that he is right in his holdings as to the damage-items. We confirm his award on his findings. It seems to use that the reasonable royalty found by the master is adequate and justified by the evidence.

On plaintiff's motion to assess costs and provide for interest on the award, the plaintiff having prevailed before the master, we are of the opinion that as a matter of course the costs of the accounting must be assessed against the defendants. The decree will so provide.

On the subject of interest, we believe the correct and proper ruling would be to allow interest on the award of damages from the date that the infringement ceased: Motor Player Corporation v. Piano Motors Corporation, 19 Fed. (2) 993. The decree may so provide.

The exceptions, therefore, both of the plaintiff and of the defendants to the special master's report will be overruled, and the report confirmed absolutely. A decree in accordance with this opinion may be submitted.

IN UNITED STATES DISTRICT COURT

SUPPLEMENTAL OPINION ON SPECIAL MASTER'S REPORT—
Filed June 28, 1934

SCHOONMAKER, J.:

On further consideration of the Master's report and consideration of memorandum and letters submitted by counsel for both parties, we are convinced that we were in error in awarding to plaintiff both $414,120.70 as a reasonable royalty and $2807.89 as specific damages due to reduced selling price.

[fol. 1111] Further consideration leads us to the conclusion that the adoption of a reasonable royalty as a basis of recovery precludes the possibility of any further award. Egry Register Co. v. Standard Register Co., 23 Fed. (2d) 438.

We therefore amend our former opinion to this extent and sustain defendants' exception No. 11 to the extent of the award of $2807.89 as specific damages due to reduced selling price in addition to award of a reasonable royalty.

IN UNITED STATES DISTRICT COURT

FINAL DECREE—Filed July 2, 1934

This cause came on to be further heard at this term and was argued by counsel and thereupon, upon consideration thereof it is

Ordered, that the exceptions of the plaintiff to the Master's report be and the same are hereby overruled and it is further

Ordered, that the exceptions of the defendants to the Master's report (except No. 11) be and the same are hereby overruled and it is further

Ordered, that the Master's report be and the same is hereby confirmed absolutely; and it is further

Ordered, that the motion of the plaintiff to assess interest at the rate of 6 per cent. per annum on the amount awarded by the Master from the date the infringement ceased, be and the same is hereby granted; and it is further

Ordered, that the plaintiff recover from the defendants, and/or either of them, the sum of four hundred and fourteen thousand, one hundred twenty dollars and seventy cents ($414,120.70), with interest thereon at the rate of six [fol. 1112] per centum (6%) per annum, from the date on which the infringement ceased, to wit, from May 31, 1930, until the entry of this decree, and it is further

Ordered, that the plaintiff recover from the defendants, and/or either of them, its costs heretofore taxed by the clerk of this court in the amount of eight thousand three hundred thirty-two dollars and twenty-five cents ($8332.25), and it is further

Ordered, that the plaintiff have judgment for the sums hereinabove decreed, in the total amount of five hundred twenty-three thousand nine hundred twelve dollars and fifty-two cents ($523,912.52) against the defendants, and/or either of them, and that such judgment shall carry

interest at the rate of six per centum (6%) per annum until paid.

Dated June 30, 1934.

F. P. Schoonmaker, United States District Judge.

Approved as to form.

Brown, Critchlow & Flick, Solicitors for Plaintiff.
Smith, Buchanan, Scott & Gordon, Solicitors for Defendants.

Eo die, an exception noted to the plaintiff, Triplex Safety Glass Company of North America, and the bill sealed.

F. P. Schoonmaker, United States District Judge.

Eo die, an exception noted to the defendants, Duplate Corporation and Pittsburgh Plate Glass Company, and the bill sealed.

F. P. Schoonmaker, United States District Judge.

[fol. 1113] In United States District Court

Order Regarding Findings of Fact and Conclusions of Law—Filed August 2, 1934

Now, this second day of August, 1934, this matter having come on to be heard on motion of the plaintiff's counsel and upon due consideration thereof, it is

Ordered that the opinion of this Court filed May 1, 1934, and the supplemental opinion filed June 28, 1934, and the Special Master's finidngs of fact and conclusions of law, as set forth in the findings of fact numbered 1 to 26, both inclusive, and the conclusions of law numbered 1 to 18, both inclusive, appearing at the conclusion of his report docketed in this court on the twelfth day of January, 1934, except the Special Master's conclusion of law 17, be and hereby are adopted as the findings of fact and conclusions of law of this Court in conformity with Equity Rule No. 70½.

F. P. Schoonmaker, United States District Judge.

And now, August 27, 1934, defendants except to the above order and at their instance exception noted and bill sealed.

F. P. Schoonmaker, D. J., per G.

[fol. 1114] IN UNITED STATES DISTRICT COURT

PETITION FOR APPEAL—Filed September 6, 1934

To the Honorable the Judges of Said Court:

Duplate Corporation and Pittsburgh Plate Glass Company, your petitioners, who are defendants in the above-entitled case, pray that they may be permitted to take an appeal from the decree entered in the above-entitled case on the thirtieth day of June, 1934, to the United States Circuit Court of Appeals for the Third Circuit, for the reasons specified in the assignments of error which are filed herewith. The filing of an appeal cost bond has been waived by stipulation of the parties heretofore filed with this Court.

William Watson Smith, Leon E. Hickman, Smith, Buchanan, Scott & Gordon, Bayard H. Christy, Solicitors for Petitioners.

IN UNITED STATES DISTRICT COURT

ORDER ALLOWING APPEAL—Filed September 6, 1934

The Petition of Duplate Corporation and Pittsburgh Plate Glass Company, defendants in the above-entitled case, for an appeal from the decree of the United States District Court is hereby allowed this sixth day of September, 1934, without the filing of an appeal cost bond, it having been waived by stipulation of the parties heretofore filed with this Court.

By the Court.

[fol. 1115] IN UNITED STATES DISTRICT COURT

ASSIGNMENTS OF ERROR—Filed September 6, 1934

And now, this sixth day of September, 1934, Duplate Corporation and Pittsburgh Plate Glass Company, defendants in the above-entitled case, complain that in the record and proceedings in such case and in the final judgment therein manifest error has occurred to the prejudice of the defend-

ants, more particularly specified in the following assignments of error, upon which the defendants rely to sustain the appeal prayed for to the United States Circuit Court of Appeals for the Third Circuit:

1. The District Court of the United States for the Western District of Pennsylvania erred in entering its decree for the plaintiff for $414,120.70 and interest and costs as therein set forth, said decree being as follows:

"Final Decree

"This cause came on to be further heard at this term and was argued by counsel and thereupon, upon consideration thereof, it is

"Ordered, that the exceptions of the plaintiff to the Master's Report be and the same are hereby overruled and it is further

"Ordered, that the exceptions of the defendants to the Master's Report (except No. 11) be and the same are hereby overruled and it is further

"Ordered that the Master's Report be and the same is hereby confirmed absolutely; and it is further

"Ordered that the motion of the plaintiff to assess interest at the rate of 6% per annum on the amount awarded by [fol. 1116] by the Master from the date the infringement ceased, be and the same is hereby granted; and it is further

"Ordered that the plaintiff recover from the defendants, and/or either of them, the sum of Four Hundred and Fourteen Thousand, One Hundred Twenty Dollars and Seventy Cents ($414,120.70) with interest thereon at the rate of six per centum (6%) per annum, from the date on which the infringement ceased, to-wit, from May 31, 1930, until the entry of this decree, and it is further

"Ordered that the plaintiff recover from the defendants, and/or either of them, its costs heretofore taxed by the Clerk of this Court in the amount of Eight Thousand Three Hundred Thirty-Two Dollars and Twenty-Five Cents ($8,332.25) and it is further

"Ordered that the plaintiff have judgment for the sums hereinabove decreed, in the total amount of Five Hundred Twenty-Three Thousand Nine Hundred Twelve Dollars and Fifty-Two Cents ($523,912.52) against the defendants, and/or either of them, and that such judgment shall carry

interest at the rate of six per centum (6%) per annum until paid.

Dated: June 30, 1934.

F. P. Schoonmaker, United States District Judge.

"Approved as to form.

Brown, Critchlow & Flick, Solicitors for Plaintiff.

Smith, Buchanan, Scott & Gordon, Solicitors for Defendants.",

to which decree the defendants were noted the following exception:

"Eo die, an exception noted to the defendants, Duplate Corporation and Pittsburgh Plate Glass Company, and the bill sealed.

F. P. Schoonmaker, United States District Judge."

[fol. 1117] 2. The District Court of the United States for the Western District of Pennsylvania erred in overruling the defendants' first exception to the report of the Special Master to whom this cause was referred for an accounting. This exception, reading as follows:

"1. The learned Master erred in his twenty-fifth finding of fact (p. 1047):

'25. That a reasonable royalty for the manufacture of laminated glass under the patent in suit during the accounting period was 10¢ per square foot.';

whereas he should have found (1) *that the plaintiff was entitled to nominal damages only,* (a) because the plaintiff, sustained by the learned Master, refused to permit the defendants to examine the books and records of the plaintiff for the purposes, among others, of showing the plaintiff's volume of business, its costs, profits, losses, rejections, returns, factory operating experience, damages from loss of sales, royalties and operating experience under its licenses to the Ford Motor Company and the Johnston Glass Company, all as more particularly requested, offered, opposed and ruled at pages 671-677, 775-776, 861, and 947-948 of the Record; (b) because, by statutory limitation (35 U. S. C. A., §70), a reasonable royalty may be awarded only if the plaintiff's damages or the defendants' profits or losses are not susceptible of calculation and determination with rea-

sonable certainty, both of which calculations the learned Master could and did make; (c) because a reasonable royalty is that royalty which one desiring to manufacture and sell the patented article during the accounting period would be willing to pay as a royalty, and yet be able to make a reasonable profit (Rockwood v. General Fire Extinguisher Co., 37 F. (2d) 62, 66, certiorari denied, 269 U. S. 571), and the learned Master has found that the defendants lost money during the accounting period (Finding No. 19, p. 49) and has refused to permit an examination of the plaintiff's [fol. 1118] books, as hereinbefore averred; (d) because no satisfactory process was in existence for the manufacture of the patented product and this had to be developed by the Ford Motor Company and Duplate Corporation at great expense and independently of the plaintiff and its patent (Wibel, 531-532; McCarroll, 549-550, 553-560; Sherts, 417-422, 429-436, 451-458; Clause, 337-342, 346-348, 370-371); (e) because the state of the art was such that neither the plaintiff, its licensees, nor Duplate Corporation could make a satisfactory product without a large percentage of defective product, resulting in rejections, replacements and returns and, as a consequence, increased sales resistance (Wibel, 532-535; McCarroll, 544-547, 549-550, 555-557; Sherts, 442-443; and Downey, 624, 627-628); (f) because the experience of the Ford Motor Company (Wibel, 528-541; McCarroll, 542-563), as licensee of the plaintiff, had been so unfortunate in the quality of the product produced as to greatly increase the difficulty of interesting the general public or the automobile companies in the use or purchase of laminated glass (Downey, 619, 624, 627-628; McLarty, 634-635; Wherrett, 867-868; Higgins, 801-803); (g) because difficulties of price due to the competition in price of the patented product with sheet and plate glass (Higgins, 789-790, 813-814, 874; Wherrett, 862; Fisher, 563-568; Downey, 619-624, 627-628), the lack of public interest in or demand for laminated glass in automobiles (Edwards, 167-169; McLarty, 633-635; Higgins, 482-485; Wibel, 530; Fisher, 563-568; Downey, 619-624, 627-628; cf. Caulfield, 231-233, 306), and the unfavorable impression created upon the public by the laminated windshields on Ford cars (f, supra), and the reluctance of the automobile manufacturers to create a demand by advertising to the public the dangers inherent in the unpatented windshield and window glass (Blackmore,

606-608), there was, until created by the efforts of the defendants, practically no market for laminated glass; and (h) because the learned Master was improperly influenced [fol. 1119] by the belief that the defendants had substantially driven the plaintiff out of business (Report, 1041-1043), a consideration which was neither correct (see fifth exception) nor relevant; or, in the alternative, (2) *that in no event should a reasonable royalty exceed one-half cent a square foot* (a) because the only testimony predicated upon the facts as the Master found them was to the effect that a reasonable royalty would not be in excess of one-half cent per square foot (Harness, 574 to 596; and Blackmore, 596 to 614), after giving due consideration to the supposed advantages to the plaintiff of its license to the Ford Motor Company, as enumerated at pages 1039-1040 of the Master's report (Harness, 578, 592, 595-596; Blackmore, 596); (b) because the learned Master appears to have given no consideration to the fact that the patent expired on May 9, 1933, an important factor (Harness, 584); (c) because the recommended reasonable royalty is improperly predicated in part upon plaintiff's testimony concerning a license to the Johnston Glass Company (Exhibit 24; and Haskell, 199), inasmuch as (i) that license covered eight patents, and contained covenants concerning volume and price of sales not comparable to the instant case, and (ii) there was no testimony of sales or royalties under that license other than that they were small (Haskell, 199), which the Master recognized as unsatisfactory at page 1030 of his report; (d) because the recommended reasonable royalty is twice as high as royalty paid by the Ford Motor Company on nine patents, including the one in suit, and two trade-marks (Exhibit "A"), and because this royalty paid by the Ford Motor Company also included free license for one-half of the licensee's requirements and a manufacturer's profit (Master's report, 1030), which, when segregated, leaves no more than one-half cent a square foot as royalty (Harness, 584-587, 595-596; Blackmore, 602-604, 613-614); (e) because the recommended reasonable royalty is predicated in part upon the Master's twenty-fourth finding of fact to the effect that the plaintiff at the time the infringement began had established a market for laminated glass, while the Mas- [fol. 1120] ter's report (pages 1036-1042) shows that the market thus established was trifling in size, and all of the

testimony is to the same effect (Edwards, 167-170; Caulfield, 231-233, 243, 306-308; Haskell, 191-192, 194-195; Hunt, 202; Higgins 482-487, 789-790, 803-805, 813-814; 874-877; Wherrett, 862, 867-868; Wibel, 529-531; Fisher, 563-568; Downey, 617-628; McLarty, 633-635, 637). The Master's discussion is found at pages 1034-1043 of his report.",

was overruled in the following portion of the final decree:

"Ordered, that the exceptions of the defendants to the Master's Report (except No. 11) be and the same are hereby overruled",

to which final decree an exception was noted to the defendants as follows:

"Eo die, an exception noted to the defendants, Duplate Corporation and Pittsburgh Plate Glass Company, and the bill sealed.

F. P. Schoonmaker, United States District Judge."

3. The District Court of the United States for the Western District of Pennsylvania erred in overruling the defendants' second exception to the report of the Special Master to whom this cause was referred for an accounting. This exception, reading as follows:

"2. The learned Master erred in his eighteenth conclusion of law (p. 1049),

" '18. That plaintiff is entitled to an award of $414,120.70 as royalty on the infringing laminated glass manufactured by defendant during the accounting period in in-*in*fringement of the patent in suit.';

whereas he should have ruled, on the basis of the reasons given in support of the first exception, that the plaintiff was entitled to nominal damages only.",

[fol. 1121] was overruled in the following portion of the final decree:

"Ordered, that the exceptions of the defendants to the Master's Report (except No. 11) be and the same are hereby overruled",

to which final decree an exception was noted to the defendants as follows:

"Eo die, an exception noted to the defendants, Duplate Corporation and Pittsburgh Plate Glass Company, and the bill sealed.

F. P. Schoonmaker, United States District Judge."

4. The District Court of the United States for the Western District of Pennsylvania erred in overruling the defendants' third exception to the report of the Special Master to whom this cause was referred for an accounting. This exception, reading as follows:

"3. The learned Master erred in refusing defendants' application to examine the books and records of the plaintiff, said ruling being as follows (R. 775-776):

" 'The Master: Defendants' application to examine the books and records by accountants employed by defendants as read into the record on Tuesday morning by Mr. Smith, covering all details in connection with the matters mentioned in said application, is refused and the defendant is ordered to proceed at once with its case.';

and repeated at page 948; whereas the Master should have permitted this examination for the purposes enumerated in the offer at pages 671-676 (and see pages 947-948, 861), the examination being material on the questions of (1) whether a reasonable royalty should be awarded, and, if so, how much, inasmuch as the examination would have disclosed plaintiff's volume of business, its costs, profits, [fol. 1122] losses, rejections, returns, factory operating experience, damages from loss of sales, royalties and operating experience under its licenses to the Ford Motor Company and the Johnston Glass Company, (2) whether the plaintiff suffered damage in the competition of Duplate Corporation, and, if so, its extent, and (3) the propriety of Duplate Corporation's items of expense which are challenged by the plaintiff, inasmuch as it would show that the plaintiff had comparable losses.",

was overruled in the following portion of the final decree:

"Ordered, that the exceptions of the defendants to the Master's Report (except No. 11) be and the same are hereby overruled,"

to which final decree an exception was noted to the defendants as follows:

"Eo die, an exception noted to the defendants, Duplate Corporation and Pittsburgh Plate Glass Company, and the bill sealed.

F. P. Schoonmaker, United States District Judge."

5. The District Court of the United States for the Western District of Pennsylvania erred in overruling the defendants' fourth exception to the report of the Special Master to whom this cause was referred for an accounting. This exception, reading as follows:

"4. The learned Master erred in his twenty-fourth finding of fact (p. 1047)

" '24. That the plaintiff, at the time the infringement began, had established a market for laminated glass.';

whereas he should have found, in accordance with pages 1036-1043 of his report, that the plaintiff had not established [fol. 1123] a substantial market for laminated glass (Edwards, 167-170; Caulfield, 231-233, 243, 306-308; Haskell, 191-192, 194-195; Hunt, 202; Higgins, 482-487, 789-790, 803-805, 813-814, 874-877; Wherrett, 862, 867-868; Wibel, 529-531; Fisher, 563-568; Downey 617-628; McLarty, 633-635, 637), and that the task of doing so was inherently difficult (Blackmore, 606-608). The learned Master's discussion is found at pages 1036-1041 of his report.",

was overruled in the following portion of the final decree:

"Ordered, that the exceptions of the defendants to the Master's Report (except No. 11) be and the same are hereby overruled,"

to which final decree an exception was noted to the defendants as follows:

"Eo die, an exception noted to the defendants, Duplate Corporation and Pittsburgh Plate Glass Company, and the bill sealed.

F. P. Schoonmaker, United States District Judge."

6. The District Court of the United States for the Western District of Pennsylvania erred in overruling the defend-

ants' sixth exception to the report of the Special Master to whom this cause was referred for an accounting. This exception, reading as follows:

"6. The learned Master erred in his second conclusion of law (p. 1047)

"'2. That Pittsburgh Plate Glass Company is entitled to credit for only the manufacturer's cost of the one-eighth inch plate glass used by it, or sold by it to and used by Duplate Corporation, in making laminated glass in infringement of the patent in suit.';

whereas he should have ruled that the defendants were entitled to credit for the purchase price paid by Duplate Cor- [fol. 1124] poration to Pittsburgh Plate Glass Company for one-eighth inch plate glass used in making laminated glass in infringement of the patent in suit (1) because the Pittsburgh Plate Glass Company was not called upon under the interlocutory decree of this Court dated December 5, 1931, to account for any profits, gains or advantages other than those accruing to it in the manufacture of infringing laminated glass; (2) because the plate glass, admittedly sold by the Pittsburgh Plate Glass Company to Duplate Corporation at the prevailing market price or below it (McHenry, 60; Higgins, 805-806; Wherrett, 866-867), being a marketable commodity (Master's report, 1055-1063; Higgins, 474-482, 486-496; cf. report, 1006-1007), in which the plaintiff had no patent right or other interest, should be charged into the account of the defendant Duplate Corporation at the market price thereof or the price paid by Duplate Corporation to Pittsburgh Plate Glass Company therefor, depending upon which was lower (Barber Asphalt Paving Co. v. Standard Asphalt & Rubber Co., 30 F. (2d) 281, 284, certiorari denied, 278 U. S. 659); (3) because Duplate Corporation could not be compelled to take the cost of plate glass to the Pittsburgh Plate Glass Company as its cost in this accounting without disregarding the separate corporate entities of the two companies, and this could not be done because (a) Duplate Corporation was owned in equal shares by Pittsburgh Plate Glass Company and Dupont Viscoloid Company (Master's report, 1001-1002; trial stipulation, 25; Clause, 391; McHenry, 55), (b) the management of Duplate Corporation was equally divided between the two stockholders (McHenry, 60-64, 78-80; Exhibit 21), and (c) sepa-

rate books were kept by all three companies (McHenry, 64-78, 80-82); (4) because he erroneously assumed (Report, 1055), without supporting testimony, that the Pittsburgh Plate Glass Company would have lost plate glass sales had not Duplate Corporation manufactured laminated glass, whereas uncontradicted subsequent testimony was to the [fol. 1125] effect that sales of laminated glass by Duplate Corporation were simply replacing sales of plate glass by Pittsburgh Plate Glass Company, and had sales of laminated glass not been made by Duplate Corporation the Pittsburgh Plate Glass Company would have sold plate glass to the same customers in the same amounts, with but possibly one exception (Wherrett, 868-869; Higgins, 808-810), and it is undisputed that the Pittsburgh Plate Glass Company did and would have sold plate glass to third parties manufacturing laminated glass (Higgins, 487-490; Edwards, 159-161; apparently conceded in Master's report, 1055), as it is likewise established that laminated glass was being sold by Duplate Corporation because of the sales efforts of its sales agent, Pittsburgh Plate Glass Company, and not because of the plaintiff or because of the intrinsic merit of the product (Higgins, 482-487, 789-790; Fisher, 564-565; Downey, 620-621, 826-828); (5) because in assuming (Report, 1058-1059) that unless he allowed plate glass profits to the plaintiff it would be possible for an infringer to sell a patented article at a loss and make up its profit on the marketable unpatented raw material, he ignored the undisputed testimony, both before and after his ruling, to the effect that the defendants were doing no such thing in the instant case, but were rather selling the infringing product at the best obtainable price (Higgins, 789-790, 792-794, 803-805, 822-823, 482-487; Fisher, 564-566; Downey, 619-623, 626-628; McLarty, 629-631, 634-635; cf. Edwards, 168-169) and a later ruling by the Master (595) was predicated on this position; (6) because the plate glass of the Pittsburgh Plate Glass Company was manufactured under twenty-six patents (Clause, 748-768), in none of which the plaintiff had an interest; and (7) because the owner of a patent is not entitled to recover profits resulting only indirectly from infringement. The argument of the learned Master in support of his ruling is found at pages 1006-1010 of his report and in Appendix "A" thereto.",

[fol. 1126] was overruled in the following portion of the final decree:

"Ordered, that the exceptions of the defendants to the Master's Report (except No. 11) be and the same are hereby overruled,"

to which final decree an exception was noted to the defendants as follows:

"Eo die, an exception noted to the defendants, Duplate Corporation and Pittsburgh Plate Glass Company, and the bill sealed.

F. P. Schoonmaker, United States District Judge."

7. The District Court of the United States for the Western District of Pennsylvania erred in overruling the defendants' eighth exception to the report of the Special Master to whom this cause was referred for an accounting. The exception, reading as follows:

"8. The learned Master erred in his nineteenth finding of fact (p. 1047)

" '19. That defendant, during the accounting period, operated at a net loss in the manufacture and sale of the infringing product of $276,857.47.';

whereas he should have found (1) that, for the reasons enumerated in the sixth exception, the defendant Duplate Corporation during the accounting period suffered a further net loss of $712,998.65 (computed by contrasting the computation based on sales price, as set forth in the contested items in Appendix "B," page 1, of the Master's report, with his allowance appearing on page 2 of the same appendix) in the manufacture and sale of the infringing product, this additional loss representing the spread between the so-called manufacturer's cost of the plate glass sold by the Pittsburgh Plate Glass Company to Duplate Corporation and the sales price at which this plate glass was sold by [fol. 1127] Pittsburgh Plate Glass Company to Duplate Corporation; (2) that if the foregoing portion of this exception is disallowed, he should have given Duplate Corporation an additional credit of $318,403.03, representing loss to the Pittsburgh Plate Glass Company in selling expense over and above commissions received from Duplate Corporation

(Exhibit "BB"; McHenry, 783-785, 837-840, 919-929, 933-938; see Master's discussion at p. 1014 of his report); and (3) regardless of the ruling on the foregoing portions of this exception, he should have allowed as an additional item of expense the sum of $72,060.42, which represented, as he found (Report, p. 1005), loss suffered by Duplate Corporation after the accounting period in reimbursing distributors for making replacements of defective laminated glass manufactured during the accounting period and guaranteed as to quality by the defendants (Exhibit "X"; McHenry, 777-780, 884-886, 891-901, 929-933). His rejection of this loss appears at page B-2 of his report.",

was overruled in the following portion of the final decree:

"Ordered, that the exceptions of the defendants to the Master's Report (except No. 11) be and the same are hereby overruled,"

to which final decree an exception was noted to the defendants as follows:

"Eo die, an exception noted to the defendants, Duplate Corporation and Pittsburgh Plate Glass Company, and the bill sealed.

F. P. Schoonmaker, United States District Judge."

8. The District Court of the United States for the Western District of Pennsylvania erred in overruling the defendants' tenth exception to the report of the Special [fol. 1128] Master to whom this cause was referred for an accounting. The exception, reading as follows:

"'10. The learned Master erred in his twenty-first finding of fact (p. 1047)

"'21. That plaintiff had the manufacturing facilities, personnel, and capital to handle the sales made by Duplate Corporation, as well as its own.';

whereas he should have found that the plaintiff did not have the manufacturing facilities, personnel or capital to handle the sales of infringing products made by Duplate Corporation, as well as its own (Haskell, 185; Caulfield, 229-232, 306; McCarroll, 544-547, 549-550, 561-563; Wibel,

532-534; cf. Clause, 324-325; Sherts, 412-414). The learned Master's discussion is found at page 1031 of his report.",

was overruled in the following portion of the final decree:

"Ordered, that the exceptions of the defendants to the Master's Report (except No. 11) be and the same are hereby overruled,"

to which final decree an exception was note- to the defendants as follows:

"Eo die, an exception noted to the defendants, Duplate Corporation and Pittsburgh Plate Glass Company, and the bill sealed.

F. P. Schoonmaker, United States District Judge."

9. The District Court of the United States for the Western District of Pennsylvania erred in entering the following order:

"Order Regarding Findings of Fact and Conclusions of Law

"Now, this 2nd day of August, 1934, this matter having come on to be heard on motion of the plaintiff's counsel [fol. 1129] and upon due consideration thereof, it is

"Ordered that the Opinion of this Court filed May 1, 1934 and the Supplemental Opinion filed June 28, 1934, and the Special Master's Findings of Fact and Conclusions of Law, as set forth in the Findings of Fact numbered 1 to 26, both inclusive, and the Conclusions of Law numbered 1 to 18, both inclusive, appearing at the conclusion of his report docketed in this court on the 12th day of January, 1934, except the Special Master's Conclusion of Law 17, be and hereby are adopted as the Findings of Fact and Conclusions of Law of this Court in conformity with Equity Rule No. 70½.

F. P. Schoonmaker, United States District Judge,"

to which order an exception was noted to the defendants as follows:

"And now, August 27, 1934, defendants except to the above order, and at their instance exception noted and bill sealed.

F. P. Schoonmaker, D. J., per G."

10. The District Court of the United States for the Western District of Pennsylvania erred in the allowance of interest on the damages decreed to the plaintiff, at the rate of 6 per cent. per annum from the date that infringement of the plaintiff's patent by the defendants ceased, such allowance appearing in the following portion of the final decree:

"Ordered that the motion of the plaintiff to assess interest at the rate of 6% per annum on the amount awarded by the Master from the date the infringement ceased, be and the same is hereby granted; and it is further

[fol. 1130] "Ordered that the plaintiff recover from the defendants, and/or either of them, the sum of Four Hundred and Fourteen Thousand, One Hundred Twenty Dollars and Seventy Cents ($414,120.70) with interest thereon at the rate of six per centum (6%) per annum, from the date on which the infringement ceased, to-wit, from May 31, 1930, until the entry of this decree,"

to which final decree an exception was noted to the defendants as follows:

"Eo die, an exception noted to the defendants, Duplate Corporation and Pittsburgh Plate Glass Company, and the bill sealed.

F. P. Schoonmaker, United States District Judge."

William Watson Smith, Leon E. Hickman, Smith, Buchanan, Scott & Gordon, Bayard H. Christy, Solicitors for Defendants.

In United States District Court

Notice of Appeal—Filed September 17, 1934

Sirs:

Please take notice that the plaintiff in the above-entitled case, Triplex Safety Glass Company of North America, appeals in the United States Circuit Court of Appeals for the Third Circuit from the final decree of the District Court of the United States for the Western District of Pennsyl-

vania, which was signed and entered on the thirtieth day of June, 1934, confirming the Master's report in the above-entitled case absolutely.

[fol. 1131] The grounds upon which this appeal is prosecuted are recited in the assignment of errors which are served upon you herewith.

Dated September 17, 1934.

Yours, etc., Brown, Critchlow & Flick, Solicitors for Plaintiff. First National Bank Building, Pittsburgh, Pa.

To Smith, Buchanan, Scott & Gordon, Esqs., Union Trust Building, Pittsburgh, Pa.

Copy of the within notice of appeal and petition for appeal, acknowledged this seventeenth day of September, 1934.

Smith, Buchanan, Scott & Gordon, Solicitors and Counsel for Defendants.

IN UNITED STATES DISTRICT COURT

PETITION FOR APPEAL—Filed September 17, 1934

To the Honorable F. P. Schoonmaker, Judge of the District Court of the United States, for the Western District of Pennsylvania:

The above-named plaintiff, feeling itself aggrieved by the decree made and entered in this case on the thirtieth day of June, 1934, does hereby appeal from said decree to the United States Circuit Court of Appeals, for the Third Circuit, for the reasons specified in the assignment of errors, [fol. 1132] which is filed herewith, and prays that its appeal be allowed and that a citation issue as provided by law, directed to the above-named defendants and commanding them, and each of them, to appear before said Circuit Court of Appeals for the Third Circuit, and do and receive what may pertain to justice in the premises; that a transcript of the record, proceedings and evidence in the case, duly authenticated, may be sent to the United States Circuit Court of Appeals, for the Third Circuit, and that the

decision and decree of the District Court may be reviewed, revised and modified and such other order entered as to said United States Circuit Court of Appeals may seem meet and just.

Dated September 17, 1934.

Brown, Critchlow & Flick, Solicitors for Plaintiff.

IN UNITED STATES DISTRICT COURT

ORDER ALLOWING APPEAL—Filed September 17, 1934

And now, to-wit, on the seventeenth day of September, 1934, the foregoing petition for appeal is granted and allowed.

McVicar, U. S. D. J.

[fol. 1133] IN UNITED STATES DISTRICT COURT

ASSIGNMENT OF ERRORS—Filed September 17, 1934

Eo die comes the plaintiff, Triplex Safety Glass Company of North America, and files together with its foregoing petition of appeal this, its assignment of errors, upon which it will rely in its appeal from the decree made by this Court on the thirtieth day of June, 1934:

1. The District Court erred in overruling plaintiff's first exception to the Master's finding of fact 4 in his report, which exception reads as follows:

"To the Master's Finding of Fact that there was an honest difference of opinion between patent counsel representing plaintiff and patent counsel representing defendant as to whether the patent in suit was actually infringed,"

and also erred in not sustaining said exception and reversing the Master's said finding of fact 4; and also erred in not finding that the only difference between counsel for the respective parties was with respect to the facts of the defendants' manufacturing methods.

2. The District Court erred in overruling plaintiff's second exception to the Master's conclusion of law 1 in his report, which exception reads as follows:

"To the Master's conclusion of law that the defendant was not a conscious and deliberate infringer of the patent in suit,"

and also erred in not sustaining said exception and reversing the Master's said conclusion of law 1, and also erred in not concluding as a matter of law that the defendants consciously and deliberately infringed the patent in suit.

[fol. 1134] 3. The District Court erred in holding that the defendant, Pittsburgh Plate Glass Company, was brought into the case on supplemental bill charging it to be a contributory infringer and also erred in not holding that Pittsburgh Plate Glass Company was brought into the case on supplemental bill charging it to be the alter ego of the Duplate Corporation.

4. The District Court erred in holding that counsel for the defendant, Pittsburgh Plate Glass Company, examined plaintiff's process in the manufacture of laminated glass, after which defendant's counsel gave to the defendants his legal opinion that their method of manufacturing strengthened glass did not infringe the plaintiff's patent, and also erred in not holding that counsel for defendant, Pittsburgh Plate Glass Company, did not examine plaintiff's process for the manufacture of laminated glass and did not examine defendant's process for the manufacture of laminated glass.

5. The District Court erred in holding that the defendant's counsel gave to the defendants his legal opinion that the defendant's method of manufacturing strengthened glass did not infringe the plaintiff's patent and also erred in not holding that defendant's counsel's opinion as to whether or not the defendant's method of manufacturing strengthened glass infringed the plaintiff's patent was based upon misinformation received by defendant's counsel from the agents of the defendant.

6. The District Court erred in overruling plaintiff's third exception to the Master's report, which reads as follows:

"To the Master's failure to find that the record before the Master fails to disclose any 'standard of comparison' with laminated glass,"

and also erred in not sustaining such exception.

[fol. 1135] 7. The District Court erred in overruling plaintiff's fourth exception to the Master's report, which reads as follows:

"To the Master's failure to find that there is no proof that the defendant's patents contributed anything to the profits derived from the infringing sales of laminated glass or added anything to the salability or usefulness of the laminated glass sold in infringement of the patent in suit,"

and also erred in not sustaining said exception.

8. The District Court erred in overruling plaintiff's fifth exception to the Master's conclusion of law 3 in his report, which exception reads as follows:

"To the Master's conclusion of law that in computing manufacturer's cost of the 1/8" plate glass in question, defendant is entitled to an allowance for the use of patented processes and apparatus owned by it and used in the manufacture aforesaid,"

and also erred in not sustaining said exception and reversing the Master's said conclusion of law 3 and also erred in not concluding as a matter of law that the defendant was not entitled to any allowance or apportionment of profits made from the sale of laminated glass for the use of patented process and apparatus owned by it and used in the manufacture of 1/8-inch plate glass.

9. The District Court erred in sustaining the Master's allowance of $1,108,692.73 as a deduction from profits for the use of the patented processes and apparatus owned by defendant and used by it in the manufacture of thin plate glass and also erred in not disallowing the same.

10. The District Court erred in overruling plaintiff's seventh exception to the Master's report, which reads as follows:

[fol. 1136] "To the Master's failure to conclude as a matter of law that the comparison of the continuous process

with the old process is not the proper standard of comparison in this case,"

and also erred in not sustaining said exception.

11. The District Court erred in overruling plaintiff's eighth exception to the Master's report, which reads as follows:

"To the Master's failure to conclude as a matter of law that the defendant, being a deliberate and conscious infringer, is not entitled to any allowance for the use of its patents,"

and also erred in not sustaining said exception.

12. The District Court erred in overruling plaintiff's thirteenth exception to the Master's finding of fact 8 in his report, which exception reads as follows:

"To the Master's finding that Pittsburgh Plate Glass Company suffered a 'Special Cutting Loss' on its sale of the 1/8" plate glass in question, amounting to 1.548¢ per square foot in 1928; 1.621¢ in 1929 and 2.590¢ in the first five months of 1930,"

and also erred in not sustaining said exception and reversing the Master's said finding of fact 8, and also erred in not finding that the so-called "Special Cutting Loss" represents a reduction in profits and not an actual manufacturing loss.

13. The District Court erred in overruling plaintiff's fifteenth exception to the Master's Report, which reads as follows:

"To the Master's failure to specifically find that the so-called 'Special Cutting Loss' represents a reduction of expected profit and not an actual manufacturing loss,"

and also erred in not sustaining said exception.

[fol. 1137] 14. The District Court erred in overruling plaintiff's sixteenth exception to the Master's conclusion of law 5 in his report, which exception reads as follows:

"To the Master's Conclusion of Law that in computing manufacturer's cost of the 1/8" plate glass in question, de-

fendant is entitled to an allowance for 'Special Cutting Loss,' ''

and also erred in not sustaining said exception and reversing the Master's said conclusion of law 5, and also erred in not concluding as a matter of law that defendant is not entitled to an allowance for the so-called "Special Cutting Loss."

15. The District Court erred in sustaining the Master's allowance of $178,545.86 as a deduction from profits because of an alleged "Special Cutting Loss" and also erred in not disallowing the same.

16. The District Court erred in overruling plaintiff's ninth exception to the Master's conclusion of law 4 in his report, which exception reads as follows:

"To the Master's conclusion of law that in computing the manufacturer's cost for ⅛" plate glass in question, the defendant is entitled to an allowance for Federal Income Tax paid by it in the manufacture thereof,"

and also erred in not sustaining said exception and reversing the Master's said conclusion of law 4 and also erred in not concluding as a matter of law that the defendants are not entitled to any allowance or deduction from profits for Federal income taxes paid.

17. The District Court erred in overruling plaintiff's tenth exception to the Master's report, which reads as follows:

"To the Master's failure to conclude as a matter of law that the defendant, being a conscious and deliberate in- [fol. 1138] fringer, is not entitled to any allowance for amounts paid by it as Federal Income Tax",

and also erred in not sustaining said exception.

18. The District Court erred in sustaining the Master's allowance of $216,540.76 as a deduction from profits for the Federal Income Tax paid by the defendant, and also erred in not disallowing the same.

19. The District Court erred in overruling plaintiff's twentieth exception to the Master's conclusion of law 6 in his report, which exception reads as follows:

"To the Master's conclusion of law that in computing manufacturer's cost of the 1/8" plate glass in question, defendant is entitled to an allowance for Interest on its Investment,"

and also erred in not sustaining said exception and reversing the Master's said conclusion of law six, and also erred in not concluding as a matter of law that the defendants, being deliberate infringers, are not entitled to any allowance or deduction for interest on its investment.

20. The District Court erred in sustaining the Master's allowance of $358,784.77 as a deduction from profits for interest on investment of defendant, and also erred in not disallowing the same.

21. The District Court erred in overruling plaintiff's twenty-fourth exception to the Master's conclusion of law eight in his report, which exception reads as follows:

"To the Master's Conclusion of Law that the cost of 1/8" plate glass used by the defendant but later resulting in operating losses or returns, should be included in the cost of plate glass used in computing profits or losses,"

[fol. 1139] and also erred in not sustaining said exception and reversing the Master's said conclusion of law eight, and also erred in not concluding as a matter of law that the cost of making defective laminated glass should not be included in cost when computing profits or losses.

22. The District Court erred in overruling plaintiff's twenty-fifth exception to the Master's report, which reads as follows:

"To the Master's failure to conclude as a matter of law that since no selling price for defective laminated glass has been credited to the account, the defendant is not entitled to charge the cost of manufacturing defective laminated glass against the profits made by the sale of good laminated glass,"

and also erred in not sustaining said exception.

23. The District Court erred in overruling plaintiff's twenty-sixth exception to the Master's conclusion of law nine in his report, which exception reads as follows:

"To the Master's conclusion of law that the defendant is entitled to include 'Factory Operating Losses' in its costs, in computing its profits and losses,"

and also erred in not sustaining said exception and reversing the Master's said conclusion of law nine and also erred in not concluding as a matter of law that defendants are not entitled to include "Factory Operating Losses" or defective laminated glass in its costs in computing profits or losses.

24. The District Court erred in sustaining the Master's allowance of $973,227.39, representing the cost of manufacturing defective laminated glass and called factory operating losses by the Master, and also erred in not disallowing $949,186.57 thereof.

[fol. 1140] 25. The District Court erred in overruling plaintiff's twenty-seventh exception to the Master's conclusion of law ten, which exception reads as follows:

"To the Master's conclusion of law that the defendant is entitled to charge the cost of infringing product returned as defective during the accounting period as part of its manufacturing cost in this account,"

and also erred in not sustaining said exception and reversing the Master's said conclusion of law ten and also erred in not concluding as a matter of law that the defendant is not entitled to charge the cost of infringing product returned as defective as a part of its manufacturing cost in this account.

26. The District Court erred in sustaining the Master's allowance of $421,348.81 as a deduction from profits representing the cost of manufacturing defective laminated glass returned by customers during the accounting period and also erred in not disallowing the same.

27. The District Court erred in overruling plaintiff's twenty-eighth exception to the Master's conclusion of law eleven in his report, which exception reads as follows:

"To the Master's conclusion of law that the defendant is entitled to charge the cost of the infringing product sold during the accounting period but returned as defective sub-

sequent to the accounting period as part of its manufacturing cost in this accounting,"

and also erred in not sustaining said exception and reversing the Master's said conclusion of law eleven, and also erred in not concluding as a matter of law that the defendants are not entitled to charge the cost of infringing product returned as defective as a part of its manufacturing cost in this account.

[fol. 1141] 28. The District Court erred in overruling plaintiff's thirtieth exception to the Master's report, which reads as follows:

"To the Master's failure to find that the defendant is not entitled to deduct the selling price on the infringing glass returned by customers after the accounting period from the profits which accrued to the defendant during the accounting period,"

and also erred in not sustaining said exception.

29. The District Court erred in sustaining the Master's allowance of $82,788.64 as a deduction from profits representing the selling price of defective infringing laminated glass returned by customers after the accounting period, and also erred in not disallowing the same.

30. The District Court erred in overruling plaintiff's thirty-third exception to the Master's conclusion of law fourteen in his report, which exception reads as follows:

"To the Master's conclusion of law that the nature of this accounting is such that specific selling prices cannot be compared with average monthly costs in order to distinguish loss producing sales from profit making sales,"

and also erred in not sustaining said exception and reversing the Master's said conclusion of law fourteen, and also erred in not concluding as a matter of law that costs must necessarily be averaged and that since defendants used monthly average costs in its accounting system that the method of comparing such monthly costs with specific selling prices is the correct method to be used in this account.

31. The District Court erred in overruling plaintiff's thirty-fourth exception to the Master's conclusion of law [fol. 1142] fifteen in his report, which exception reads as follows:

"To the Master's conclusion of law that the defendant is entitled to include the sum of $219,036.93 as 'Additional Pyralin Losses' in its manufacturing cost during the accounting period,"

and also erred in not sustaining said exception and reversing the Master's said conclusion of law fifteen and also erred in not concluding as a matter of law that said sum of $219,036.93 having been used to make defective laminated glass, defendant is not entitled to include such sum in its manufacturing cost.

32. The District Court erred in overruling plaintiff's thirty-fifth exception to the Master's finding of fact nineteen in this report, which exception reads as follows:

"To the Master's finding that the defendant during the accounting period operated at a net loss in the manufacture and sale of infringing product of $276,857.47,"

and also erred in not sustaining said exception and reversing the Master's said finding of fact nineteen.

33. The District Court erred in that it failed to find that the defendant operated at a net profit of $3,258,067.60 in the manufacture and sale of the infringing product, and also erred in that the District Court failed to conclude as a matter of law that the plaintiff was entitled to recover that amount from the defendants.

34. The District Court erred in overruling plaintiff's thirty-ninth exception to the Master's report, which reads as follows:

[fol. 1143] "To the Master's failure to find that the defendant, Pittsburgh Plate Glass Company, made a profit of $2,465,562.77 on the billing price of ⅛" plate glass to its laminated Department,"

and also erred in not sustaining said exception.

35. The District Court erred in overruling plaintiff's fortieth exception to the Master's report, which reads as follows:

"To the Master's failure to conclude as a matter of law that 20% of the selling price of the manufacturer would be a reasonable royalty under the circumstances in this case,"

and also erred in not sustaining said exception.

36. The District Court erred in overruling plaintiff's forty-first exception to the Master's report, which reads as follows:

"To the Master's failure to conclude as a matter of law that the plaintiff is entitled to an award of not less than $1,368,160.73 as a reasonable royalty on the infringing laminated glass product manufactured by the defendant during the accounting period, in infringment of the patent in suit,"

and also erred in not sustaining said exception.

37. The District Court erred in overruling plaintiff's exceptions to the Master's report numbered, first, second, third, fourth, fifth, seventh, eighth, ninth, tenth, thirteenth, fifteenth, sixteenth, twentieth, twenty-fourth, twenty-fifth, twenty-sixth, twenty-seventh, twenty-eighth, thirtieth, thirty-third, thirty-fourth, thirty-fifth, thirty-ninth, fortieth and forty-first.

38. The District Court erred in not sustaining plaintiff's exceptions to the Master's report numbered, first, [fol. 1144] second, third, fourth, fifth, seventh, eighth, ninth, tenth, thirteenth, fifteenth, sixteenth, twentieth, twenty-fourth, twenty-fifth, twenty-sixth, twenty-seventh, twenty-eighth, thirtieth, thirty-third, thirty-fourth, thirty-fifth, thirty-ninth, fortieth and forty-first.

39. The District Court erred in confirming the Master's report absolutely.

Wherefore, the plaintiff prays that said decree of the District Court for the Western District of Pennsylvania be modified and that said District Court be ordered to enter

a decree modifying its former decree in respect to the issues raised in the foregoing assignment of errors.

Dated September 17, 1934.

Brown, Critchlow & Flick, Solicitors for Plaintiff.

IN UNITED STATES DISTRICT COURT

STIPULATION RE RECORD—Filed October 3, 1934

And now, this third day of October, 1934, it is stipulated by and between the plaintiff and defendants hereto that, subject to the consent of the Court, the record on the appeals of the parties hereto from the decree of the Court shall be printed in the form and contained those portions of the record hereinafter set forth:

1. There shall be one record printed, to be the record of all parties in their respective appeals.

2. Those portions of the evidence taken before the Special Master appointed by the Court which are to be printed [fol. 1145] shall be printed in the question and answer form in which they were originally transcribed.

3. The following portions of the record shall be printed:

(a) The docket entries.

(b) The pleadings upon which the case was heard and determined, including the pleadings in the supplemental suit.

(c) The decrees of the District Court, dated December 9, 1929, and December 5, 1931.

(d) The release of bond, and order discharging surety on bond, dated respectively December 15 and 16, 1931.

(e) The transcript of the testimony taken before the Special Master except the following portions thereof:

The testimony of Mr. McHenry: From the second to and including the twelfth line on page 39; from the thirteenth line on page 40 to and including the fifth line on page 50; from the eleventh line on page 55 to the bottom of page 59;

from the fifteenth line on page 69 to and including the seventeenth line on page 71.

The testimony of Mr. Wherrett: From the eleventh line on page 239 to the bottom of page 249.

The ruling of the Master and the testimony of Mr. McHenry: From the top of page 250 to and including the fourth line on page 255; from the twenty-second line on page 255 to and including the seventh line on page 258; from the twenty-third line on page 258 to and including the first line on page 260.

The testimony of Mr. Clause: From the eleventh line on page 437 to and including the twenty-second line on page [fol. 1146] 440; from the fifth line on page 456 to and including the tenth line on page 461.

The testimony of Mr. Sherts: From the fourteenth line on page 553 to and including the eighth line on page 554; from the sixteenth line on page 579 to and including the eleventh line on page 580; from the eighth line on page 585 to the bottom of page 589; from the last line on page 653 to and including the twelfth line on page 656; from the ninth line on page 660 to and including the tenth line on page 662; from the tenth line on page 665 to and including the seventeenth line on page 679; from the top of page 685 to the bottom of page 734.

The interlocutory opinion of the Special Master: From the top of page 743 to the bottom of page 760, but substituting for such omission the following note in the record:

"Note.—There appears at this point in the record before the Special Master a copy of his interlocutory opinion, set forth at length in volume III at side folios 1052, 1068, of the printed record."

The testimony of Mr. McHenry: From the twenty-first line on page 1014 to and including the thirteenth line on page 1020; from the sixth line on page 1027 to and including the eighteenth line on page 1029.

The testimony of Mr. Tinstman: Beginning at the top of page 1105 to the bottom of page 1133, substituting in lieu thereof the following:

"Note.—There appeared at this point in the record the testimony of Mr. Tintsman explaining the efforts of Duplate Corporation to salvage material from defective product."

The testimony of Mr. McHenry: From the second line on page 1207 to and including the eleventh line on page 1209.

[fol. 1147] (f) Duplate Corporation's original statement of account submitted at the beginning of the hearings before the Special Master.

(g) The following plaintiff's exhibits submitted in the course of the hearings before the Special Master, to-wit: Exhibits numbered 5 (first sheet only), 6, that portion of 8 which is an abstract of stock and departmental accounts for the month of January, 1929; that portion of 9 which is a statement of the account for the month of January, 1929, 9-A, 10, 11, 12, 13, 14, 19, 21, 22, 23, 24, 26-A, 28, 30 and 31.

(h) The following defendants' exhibits submitted in the course of the hearings before the Special Master, to-wit, Exhibits A, B, M, N, P, R, U, AA, BB, DD, EE, FF, GG, HH and supplemental II, inserting after Exhibit U the following:

"NOTE.—It is stipulated by all parties that Exhibit W contains the detail of returns of infringing product manufactured during the infringing period but returned after May, 1930, showing a returned feetage of 49,810 ft. 5 in. of a value of $83,561.42; and that Exhibit X contains the detail of credits to warehouses for replacements on account of defective infringing product manufactured and sold during the infringing period but replaced subsequent thereto, such replacements amounting to 26,679 ft. 9 in. and $72,060.42 in credits. The correctness of the data appearing in these exhibits is not challenged, the sole issue between the parties being a question of law as to whether either or both are proper credits."

(i) The report of the Special Master.

(j) The exceptions of both parties to that report.

[fol. 1148] (k) Motions of both parties to dismiss the exceptions of the other.

(l) The opinions of the District Court as follows: Opinion dated June 10, 1932, and order thereon dated June 22, 1932; Opinion dated October 21, 1932, and order thereon

dated October 31, 1932; Opinion dated May 1, 1934, and Opinion dated June 28, 1934.

(m) The decree of the District Court dated June 30, 1934.

(n) Order regarding findings of fact and conclusions of law.

(o) The assignments of error of both parties.

(p) Stipulation as to record.

(q) The petitions of both parties and orders allowing appeals.

4. The following exhibits, which are deemed material by one or more of the parties and which would be printed except for their great bulk, shall be submitted to the Court as manual exhibits, with the same force and effect as though they were printed, this procedure being adopted by analogy to Rule 32 of the United States Circuit Court of Appeals for the Third Circuit, and subject to its consent:

Plaintiff's Exhibit 8, except that portion which is an abstract of stock and departmental accounts for the month of January, 1929; Plaintiff's Exhibit 9, stating the account, except the month of January, 1929, and Plaintiff's Exhibit 27; and Defendants' Exhibits F, O, Q, Q-1, V, Y and Z; also the former printed transcript of record filed when this cause was formerly on appeal to the United States Circuit Court of Appeals for the Third Circuit.

[fols. 1149 & 1150] 5. The record shall be printed by the clerk of the Circuit Court of Appeals for the Third Circuit, and he is authorized to use his discretion in determining what portion, if any, of the exhibits listed for printing should be photostated instead of printed.

6. The cost of printing this record shall be considered as applicable to the respective appeals of the plaintiff and defendants in equal shares and shall be borne by the parties in that proportion in the first instance.

Triplex Safety Glass Company of North America, by Brown, Critchlow & Flick, Its Solicitors. Duplate Corporation and Pittsburgh Plate Glass Company, by Smith, Buchanan, Scott & Gordon, Its Solicitors.

IN UNITED STATES DISTRICT COURT

ORDER AS TO RECORD

And now, this third day of October, 1934, the foregoing stipulation concerning the record in the foregoing cases having been submitted to this Court, the same is hereby approved, and it is

Ordered that the printed record on appeal shall consist of the above-named papers and documents.

Per Curiam, S.

[fol. 1151] IN UNITED STATES CIRCUIT COURT OF APPEALS, FOR THE THIRD CIRCUIT

No. 5606. October Term, 1934

No. 5626. October Term, 1934

[Titles omitted]

MINUTE ENTRY OF ARGUMENT AND SUBMISSION

And afterwards, to wit, the second day of January, 1935, come the parties aforesaid by their counsel aforesaid, and this case being called for argument sur pleadings and briefs, before the Honorable Joseph Buffington, Honorable Victor B. Woolley and Honorable J. Whitaker Thompson, Circuit Judges, and the Court not being fully advised in the premises, takes further time for the consideration thereof,

And afterwards, to wit, on the twelfth day of December, 1935, come the parties aforesaid by their counsel aforesaid, and the Court, now being fully advised in the premises, renders the following decision:

[fol. 1152] IN UNITED STATES CIRCUIT COURT OF APPEALS, FOR THE THIRD CIRCUIT

No. 5606. October Term, 1934

DUPLATE CORPORATION and PITTSBURGH PLATE GLASS COMPANY, Defendants-Appellants,

v.

TRIPLEX SAFETY GLASS COMPANY OF NORTH AMERICA, Plaintiff-Appellee

No. 5626. October Term, 1934

TRIPLEX SAFETY GLASS COMPANY OF NORTH AMERICA, Plaintiff-Appellant

v.

DUPLATE CORPORATION and PITTSBURGH PLATE GLASS COMPANY, Defendants-Appellees

Upon Appeals From the District Court of the United States for the Western District of Pennsylvania

Before Buffington, Woolley and Thompson, Circuit Judges

OPINION—Filed December 12, 1935

[fol. 1153] THOMPSON, Circuit Judge:

These are cross appeals from a decree of the District Court for the Western District of Pennsylvania affirming the report of a master in a reference for an accounting. The cause has been before this court on a prior appeal in Duplate Corp. v. Triplex Safety Glass Company, 42 F. (2d) 739. We there affirmed an interlocutory decree holding the plaintiff's patent for the manufacture of laminated glass valid and infringed by the defendant, the Duplate Corporation, hereinafter referred to as Duplate. Thereupon an accounting was ordered by the District Court and referred to a special master. The Pittsburgh Plate Glass Company, hereinafter referred to as Pittsburgh, which owned one-half of the stock of Duplate and supplied Duplate with the plate glass used in the manufacture of laminated glass, was added

as a defendant by a supplemental interlocutory decree. The master found that the defendants were innocent infringers and that they had made no profits from their manufacture and sale of laminated glass. He recommended an award as special damages due to price reductions forced on the plaintiff, Triplex Safety Glass Company of North America, hereinafter referred to as Triplex, by the competitive methods of the defendants. He also recommended an award of $414,120.70 as general damages for the losses sustained by the plaintiff, measured by a so-called reasonable royalty. Both the plaintiff and the defendants filed exceptions to the master's report. The District Court dismissed the exceptions and affirmed the report in all respects. In a supplemental opinion it sustained the exceptions to the award to Triplex of the special damage item, having concluded that the adoption of a reasonable royalty as a basis of recovery precluded any further award. No error is assigned by the plaintiff to that ruling. By final decree, the District Court ordered that Pittsburgh pay to Triplex $414,120.70, [fol. 1154] together with interest from the end of the accounting period and also the costs of suit. Both the plaintiff and the defendants have appealed from that decree.

The plaintiff assigns error to the rulings by the District Court that the infringement was in good faith; that the defendants' method of stating the account was justifiable; that Duplate was entitled to take credit for rejects and returns of laminated glass and for pyralin losses; and that Pittsburgh was entitled to take credit, as to plate glass, for the use of patents owned by it, for federal income taxes, for interest on its investment, and for cutting losses. The defendants appeal from the award, which, they contend, is excessive, and from the rulings of the District Court that it had power to award general damages and that the defendants were not entitled to examine the plaintiff's books. They also appeal from the award of interest and from the imposition of costs.

We shall first discuss and dispose of the issues raised by the plaintiff's appeal.

Good Faith

The Master found, and the District Court adopted the finding, that the defendants were not wilful and deliberate

infringers. The plaintiff assigns this conclusion of law as error. The District Court in its opinion stated that the defendants "took the advice of legal counsel who not only examined the plaintiff's patent, but the plaintiff's process in the manufacture of laminated glass, after which defendants' counsel gave to the defendants his legal opinion that their method of manufacturing strengthened glass did not infringe the plaintiff's patent." We do not accept as a general principle of law that the advice of counsel, prior to an infringement, precludes further inquiry into the good faith of an alleged infringer. It is not necessary, however, [fol. 1155] to place reliance upon such a principle in order to find that the defendants in the instant case did act in good faith. Although there is sufficient evidence on both sides of this controversy to raise a valid issue, we are constrained to the conclusion that there is ample evidence to support the findings of the master and the District Court. The error assigned on this issue is not sustained.

Method of Stating Account

The defendants stated the account by deducting the total of the costs and expenses incurred in the manufacture of laminated glass during the entire accounting period from the total receipts from the sale of laminated glass for the same period. They thus treated the infringement as one continuing course of conduct and offset the profits derived from some sales by losses sustained from others. The master adopted this method and was sustained by the District Court. The plaintiff assigns this as error. It contends that proper patent accounting procedure requires that, where the infringement of a product claim is being accounted for, each sale constitutes a separate infringement; that the profit derived from each sale must be accounted for and turned over to the owner of the patent; and that if some sales result in losses, the infringer must bear those losses and may not offset the loss-incurring sales against the profitable sales. The plaintiff submitted an independent account in which it enumerated the individual sales made by Duplate, giving the name of the customer, the number of square-feet of glass sold, and the net sales price. It set out the cost of material and labor of each sales unit on a monthly average basis computed by the

same method as that used by the defendants in keeping their books, and allocated a proportion of the factory and general overhead to each sales unit. It offset the monthly average cost per square foot of laminated glass against [fol. 1156] the specific price per square foot for which the laminated glass was sold. It thus determined which sales were made at a profit and which at a loss. The master refused to adopt this method because of his conclusion that average costs do not reflect specific costs.

The plaintiff's method of separating the sales into profitable and unprofitable sales has been approved by us in McKee Glass Co. v. Fry Glass Co., 248 F. 125, wherein Judge Woolley speaking for this court said:

"The subject-matter of the reference to the master was injuries sustained by the complainant arising directly from infringing sales. These were measured by profits earned and damages inflicted. As the infringing sales were of two classes, those creating profits and those carrying losses, the master's inquiry was directed to the amount of profits on the former, and the measure of damages on the latter, or on both. Against the defendants' contention that the complainant was entitled only to net profits on all sales after deducting losses on some from profits on others, the master held, we think correctly, that, as the complainant was not a quasi partner of the infringers losses incurred by the defendants through their wrongful invasion of the complainant's patent were not chargeable to the complainant (Crosby Valve Co. v. Safety Valve Co., 141 U. S. 441, 12 Sup. Ct. 49, 35 L. Ed. 809), and, therefore, the complainant was entitled to all profits realized by the defendants without deduction of any losses they had sustained. We find no error in either the theory or amount of this finding."

See also Electrical Engineers Equipment Co. v. Champion Switch Co., 49 F. (2d) 359. The reason assigned by the master for refusing to follow this method is that in the instant case average costs do not reflect specific costs. We do not find any substantial factors in the instant case on this issue which differentiate it from the cited cases. The [fol. 1157] account must be restated in accordance with the plaintiff's method.

Rejects and Returns

Pyralin Losses:

The contentions upon this issue are somewhat allied to the one just discussed. The defendants were allowed to take credit in the amount of $1,477,364.84 for rejects and returns of defective laminated glass and $219,036.93 for pyralin losses. The plaintiff objects to these allowances, contending that the accounting infringer may not offset against the profit which it made on the sale of the infringing product the loss which it sustained in the manufacture of such of the product as had not been sold, because defective, or if sold, had been returned for the same reason. We think that this issue was decided adversely to the defendants here, in Crosby Steam Gage & Valve Co. v. Consolidated Safety Valve Co., 141 U. S. 441, 457, where the Supreme Court said:

"As for the contention that the destroyed valves ought to form a credit against the profits actually realized by the defendant on other valves, it is sufficient to say that the only subject of inquiry is the profit made by the defendant on the articles which it sold at a profit, and for which it received payment, and that losses incurred by the defendant through its wrongful invasion of the patent are not chargeable to the plaintiff, nor can their amount be deducted from the compensation which the plaintiff is entitled to receive. The Cawood Patent, 94 U. S. 695; Elizabeth v. Pavement Co., 97 U. S. 126, 138; Tilghman v. Proctor, 125 U. S. 136."

We are of the opinion that the account must be restated so as to omit credits for rejects and returns and for pyralin losses.

[fol. 1158]. Patents:

Pittsburgh supplied Duplate with all of the plate glass used by the latter for laminated glass. In the manufacture of plate glass Pittsburgh used a so-called "continuous process" which embodied the teachings of twenty-six patents which Pittsburgh owned and which greatly reduced the cost of manufacture of plate glass. However, in billing

Duplate, Pittsburgh calculated the cost of the plate glass as though it had been manufactured without the patented process. The master allowed Pittsburgh credit for the use of the twenty-six patents and was sustained by the District Court.

The sales value of the laminated glass was in no way enhanced by the fact that one of its component parts, plate glass, could be manufactured more cheaply by the use of the "continuous process" than without such process. The principle has been firmly established in patent law that where the entire commercial value of a mechanism or product arises from the patent improvement, the owner of the patent is entiled to recover from the infringer the total profits derived from the manufacture, use or sale of the mechanism or product. Westinghouse Co. v. Wagner Mfg. Co., 225 U. S. 604, Crosby Valve v. Safety Valve, supra, Carborundum Co. v. Electric Smelting & Aluminum Co., 203 F. 976, Conroy v. Penn Electrical & Mfg. Co., 199 F. 427, Wales v. Waterbury Mfg. Co., 101 F. 126. We conclude that the account must be restated so as to set forth the actual cost of the plate glass without credit for the use of the patents involved in the "continuous process".

Federal Income Taxes:

The master found that Pittsburgh was entitled to a deduction for Federal income taxes in the amount of $216,540.76. The Second Circuit in Stromberg Motor Devices [fol. 1159] Co. v. Zenith-Detroit Corp., 73 F. (2d) 62, and this Circuit in MacBeth-Evans Glass Co. v. L. E. Smith Glass Co., 23 F. (2d) 459, have held that Federal income taxes actually paid may be deducted as a proper item of expense in a patent accounting. We do not think that Larson Co. v. Wrigley Co., 277 U. S. 97, relied upon by the plaintiff as authority for the denial of the right to deduct taxes is determinative, for whereas the defendant in that case was found guilty of a conscious and deliberate infringement, the defendants in the instant case infringed in good faith. We conclude that the District Court did not err in approving the master's allowance for Federal income taxes paid by Pittsburgh and the error assigned on this issue is not sustained.

Interest on Investment:

The master found as a fact that the amount involved in interest on investment was $358,784.77 and that Pittsburgh was entitled to an allowance for such interest. The plaintiff, conceding that the weight of authority is contra, asks this court to hold that under the circumstances of the case Pittsburgh should be precluded from credit as to this item because the infringement was wilful and deliberate. Inasmuch as we sustain the ruling of the court below that the defendants' infringement was not wilful and deliberate, we think that this is a case in which to apply the well-established principle that an infringer is entitled to a reduction of profits by allowance of interest on invested capital. Stromberg-Motor Devices Company v. Zenith-Detroit Corp., supra. We think that the District Court did not err in allowing the defendant to take credit for interest on invested capital and the error assigned on this issue is not sustained.

[fol. 1160] Special Cutting Loss:

The master allowed Pittsburgh credit for $178,545.86 as a so-called special cutting loss. Pittsburgh based its claim on an alleged loss due to the following situation:—

Glass is sold by the glass industry in bracket sizes. Duplate required great quantities of 1/8" plate glass of a certain bracket in its manufacture of laminated glass for automobile purposes. In supplying Duplate orders Pittsburgh was left with a large quantity of relatively small sizes in strips and brackets up to the 1' to 2' 8" bracket, which it could not sell to Duplate, for which there was a restricted market and which sold for much less than the larger brackets. Pittsburgh contends that these strips and smaller brackets sold for less than cost and that part of the loss should be allocated to Duplate sales. The plaintiff contends that the strips and small brackets sold for more than cost and that Pittsburgh's claim is for a loss of expected profits rather than for an actual loss. Their respective methods of determining the specific manufacturing cost per square foot of 1/8" plate glass for the year 1928 is set out below:

	Pittsburgh	Plaintiff
Actual Cost	$.15590	$.15590
Income Tax	.02267	
Interest on Investment	.02553	
Patents	.12474	
Specific Cost of 1/8" plate glass per square foot	$.32884	$.15590

The average selling price in 1928 for the strips and smaller brackets was $.20644 per square foot. If the specific manufacturing cost of 1/8" plate glass was $.32884 per square foot, as contended by Pittsburgh, there was a loss; and if [fol. 1161] $.15590 per square foot, as contended by the plaintiff, there was a profit. We have already discussed the issues as to allowances for income tax, interest on investment, and patents and have concluded that allowances were properly made for the first two items and improperly made for the last item. We would therefore recalculate the specific manufacturing cost per square foot of 1/8" plate glass for the year 1928 as follows:

Actual Cost	$.15590
Income Tax	.02267
Interest on Investment	.02553
Patents	
Specific Cost of 1/8" plate glass per square foot	$.20410

With a sale price of $.20644 per square foot and a manufacturing cost of $.20410, there was a slight margin of profit rather than a loss on the sale of strips and smaller brackets for the year 1928. The account must be restated so as to omit the allowance for special cutting loss in 1928, and if, in fact, no loss occurred on the sale of strips and smaller bracket glass during 1929 and the first five months in 1930, the account must be restated as of that period.

The defendants contend that the District Court erred in awarding general damages to the plaintiff; that no damages should have been awarded, inasmuch as the defendants were precluded from examining the plaintiff's books; that the general damages awarded were in fact excessive; that no interest should have been allowed prior to the date

of the master's report; and that costs should be apportioned between the plaintiff and the defendants. We shall discuss those contentions in the order mentioned.

[fol. 1162] General Damages:

The question as to the power to award general damages must be determined by a construction of Rev. Stat. 4921 (35 U. S. C. A. 70). The pertinent portion of this statute provides:

"The several courts vested with jurisdiction of cases arising under the patent laws shall have power to grant injunctions according to the course and principles of courts of equity, to prevent the violation of any right secured by patent, on such terms as the court may deem reasonable; and upon a decree being rendered in any such case for an infringement the complainant shall be entitled to recover, in addition to the profits to be accounted for by the defendant, the damages the complainant has sustained thereby, and the court shall assess the same or cause the same to be assessed under its direction. If on the proofs it shall appear that the complainant has suffered damage from the infringement or that the defendant has realized profits therefrom to which the complainant is justly entitled, but that such damages or profits are not susceptible of calculation and determination with reasonable certainty, the court may, on evidence tending to establish the same, in its discretion, receive opinion or expert testimony, which is hereby declared to be competent and admissible, subject to the general rules of evidence applicable to this character of testimony; and upon such evidence and all other evidence in the record the court may adjudge and decree the payment by the defendant to the complainant of a reasonable sum as profits or general damages for the infringement."

This section refers to the right of the owner of a patent to recover profits and damages. "In patent nomenclature what the infringer makes is 'profits', what the owner of the patent loses by such infringement is 'damages'." Diamond Stone Sawing Machine Co. v. Brown, 166 F. 306. A finding that the infringer made no profits does not preclude

[fol. 1163] an award of damages. Marsh v. Seymour, 97 U. S. 348. Even though the owner of the patent cannot prove his losses specifically he may nevertheless recover damages on a reasonable royalty basis. Dowagiac Mfg. Co. v. Minnesota Plow Co., 235 U. S. 641. Merrell Soule Co. v. Powdered Milk Co., 7 F. (2d) 297. United States Frumentum Co. v. Lauhoff, 216 F. 610.

The defendants contend that no award of general damages may be made in the instant case because the plaintiff failed to prove that specific damages were not, in the terms of the statute, "susceptible of calculation and determination with reasonable certainty." They rely upon Wallace & Tiernan Co. v. City of Syracuse, 45 F. (2d) 693, which holds that proof that the plaintiff's losses cannot be computed is a condition precedent to an award of general damages. That case was distinguished on its facts by the same court in Cincinnati Car Co. v. New York Rapid Transit Corp., 66 F. (2d) 592. In both the Cincinnati case, supra, and the instant case, the proofs as to specific damages were inadequate. In the Cincinnati case, supra, the Court allowed an award of general damages. We think that under the circumstances which existed in the instant case the District Court was within its statutory authority to award general damages based on a reasonable royalty. The defendants' contention on this issue is not sustained.

Examination of Plaintiff's Books:

In the course of the hearing before the master the plaintiff refused to open its books to an accounting. The defendants claim that this affects the entire accounting. The trial court disregarded this contention. We might have deemed this error, had the plaintiff been attempting to recover [fol. 1164] profits for sales which it did not make or could not make because the defendants had taken customers from it. The bill and supplemental bill, however, indicate to us that the plaintiff has not attempted to recover from the defendants damages or profits for its loss of customers. The prayers of the bill and supplemental bill are (1) that the defendant be compelled to account for all strengthened (sic. laminated) glass embodying any of the improvements of the patent which it manufactured and sold etc.; (2) that the defendant be compelled to account for and pay to the plaintiff all profits, gains, and savings by it acquired and the actual damages suffered by the plaintiff from the in-

fringement; (3) that the defendant and its officers be restrained from further violating the plaintiff's patent rights; (4) that the defendant be decreed to pay the costs of suit; (5) that the defendant be restrained from making and selling the product; (6) that the defendant be restrained from further infringing the patent; (7) that a writ of subpoena ad respondendum issue. There is no prayer for an accounting of damages for loss of sales by the plaintiff occasioned by acts of the defendant. We think that inasmuch as the question of damages through the loss of sales was not raised by the pleadings, the matter of an examination of the plaintiff's books by the defendants was not vital to the issues raised by the plaintiff in its two bills. We find no error in the ruling of the court below on this issue.

Excessive Award:

The District Court, acting upon the recommendation of the master, awarded damages based upon a royalty of ten cents a square foot for all laminated glass manufactured by Duplate. The defendants contend that the royalty is unreasonable and the award excessive. They reason that the [fol. 1165] rate paid by Ford Motor Company the only licensee of any importance, should be the maximum measure of the general damages to be imposed upon the defendants. It is our view that no general conclusions may be drawn from the royalty rate paid by Ford Motor Company, since that company undertook an advertising program for Triplex which would have been beyond the financial ability of either Triplex or the average licensee. The defendants also assign error to the master's ruling that Pittsburgh could charge only the manufacturing cost of one-eighth inch glass and not the market price. We agree with the master, for the reasons well stated by him, that the applicable authority is not Barber Asphalt Paving Co. v. Standard Asphalt & Rubber Co., 30 F. (2d) 281, cited by the defendants. We are inclined to give great weight to the master's fact findings. Armstrong v. Belding Bros. Co., 297 F. 728 (certiorari denied 265 U. S. 585). As was said by Judge Stone in Levin Bros. v. Davis Mfg. Co., 72 F. (2d) 163, 165, "Determinations of fact matters by a master which are confirmed by the trial court should not be overthrown on appeal except on the clearest showing of mistake. * * *" The defendants' contention of error on this issue is not sustained.

Interest on Award:

The accounting period ran from January 1, 1928, to May 30, 1930, the date when infringement ceased. The District Court computed interest from the end of the infringement. The defendants contend that the interest should have been computed from the date of the master's report, January 12, 1934, when the general damages were first liquidated. We find cases of equal authority both ways. National Brake & Electric Co. v. Christensen, 38 F. (2d) 721. Rockwood v. General Fire Extinguisher Co., 37 F. (2d) 62. National [fol. 1166] Tube Co. v. Mark, 10 F. (2d) 430. Our view is that since the case is one in equity, the matter of interest is one within the court's discretion. Merrell Soule Co. v. Powdered Milk Co., 7 F. (2d) 297. Whatever moved the master to recommend and the court to decree interest from the time when the infringement ceased does not appear, but we find nothing in the record on which to base a ruling that the court abused its discretion, and its ruling is sustained.

Costs:

The District Court taxed the costs entirely against the defendants. In equity the allowance of costs is within the discretion of the trial court. Ladd v. Tallman, 59 F. (2d) 732. Minar v. Hammett, 53 F. (2d) 149 (Certiorari denied 284 U. S. 682). Federal Surety Co. v. A. Bentley & Sons, 51 F. (2d) 24. Unless exceptional circumstances exist, as in Jacobs v. Iodent Chemical Co., 41 F. (2d) 637, the award will not be disturbed in the absence of an abuse of discretion. No argument has been advanced to persuade us that the court abused its discretion, and its ruling is sustained.

On the plaintiff's appeal, insofar as the decree of the District Court is in accord with the rulings hereinabove set forth, it is affirmed and insofar as we have found error in the Court's rulings the decree is reversed with directions to modify the decree in accordance with this opinion. Insofar as error is assigned upon the defendants' appeal, the decree is affirmed.

A true Copy. Teste:

—— ——, Clerk of the United States Circuit Court of Appeals for the Third Circuit.

[fol. 1167] IN UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT, OCTOBER TERM, 1934

No. 5606

DUPLATE CORPORATION and PITTSBURGH PLATE GLASS COMPANY, Defendants-Appellants,

v.

TRIPLEX SAFETY GLASS COMPANY OF NORTH AMERICA, Plaintiff-Appellee

Appeal from the District Court of the United States for the Western District of Pennsylvania

ORDER AFFIRMING DECREE

This cause came on to be heard on the transcript of record from the District Court of the United States, for the Western District of Pennsylvania, and was argued by counsel.

On consideration whereof, it is now here ordered, adjudged, and decreed by this Court that the decree of the said District Court in this cause be, and the same is hereby affirmed, with costs, except in so far (1) as it refers to the defendants' method of accounting, (2) as it allows credit for rejects and returns and pyralin losses, and (3) as it allows credit for the use of the patents involved in the "continuous process." As to these three items, the said District Court is directed to order a restatement of defendants' account in accordance with the terms of the opinion of this Court.

J. W. Thompson, Circuit Judge.

Philadelphia, December 12, 1935.

[fol. 1168] IN UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT, OCTOBER TERM, 1934

No. 5626

TRIPLEX SAFETY GLASS COMPANY OF NORTH AMERICA, Plaintiff-Appellant,

v.

DUPLATE CORPORATION and PITTSBURGH PLATE GLASS COMPANY, Defendants-Appellees

Appeal from the District Court of the United States, for the Western District of Pennsylvania

ORDER AFFIRMING DECREE

This cause came on to be heard on the transcript of record from the District Court of the United States, for the Western District of Pennsylvania, and was argued by counsel.

On consideration whereof, it is now here ordered, adjudged, and decreed by this Court that the decree of the said District Court in this cause be, and the same is hereby affirmed, with costs, except in so far (1) as it refers to the defendants' method of accounting, (2) as it allows credit for rejects and returns and pyralin losses, and (3) as it allows credit for the use of the patents involved in the "continuous process." As to these three items, the said District Court is directed to order a restatement of defendants' account in accordance with the terms of the opinion of this Court.

J. W. Thompson, Circuit Judge.

Philadelphia, December 12, 1935.

[fol. 1169] Clerk's certificate to foregoing transcript omitted in printing.

[fol. 1170] **PLAINTIFF'S EXHIBIT NO. 1**

Summary of Monthly Shipments

(Not Printed)

PLAINTIFF'S EXHIBIT NO. 2

Pink Slips—Order No. M. S. 1019, November 26, 1929

(Not Printed)

PLAINTIFF'S EXHIBIT NO. 3

Pink Slips—Order No. 686

(Not Printed)

PLAINTIFF'S EXHIBIT NO. 4

White Slips—Original Invoice

(Not Printed)

(Here follows 1 photo, side folio 1171.)

PLAINTIFF'S EXHIBIT NO. 5.

Four Documents: Order, Invoice, Voucher and Cancelled Check.

(Order Only Printed.)

(copy)

OFFICE COPY

PITTSBURGH PLATE GLASS CO.

Pittsburgh, Pa. 8/30/28

Show Order Number on Invoice, Correspondence and Packages

478½
69/102

Rasner&Ding r,
City

Please furnish us with the articles named below.

MAIL INVOICE and B/L to Purchasing Department, Frick Building, Pittsburgh, Pa.

9/15

Furnish 1 bag clamp consisting of:-

1 steel shape
1 pipe
2 handles

7.90

As per sketch att.

Please Rush

JOB

Ship via bag clamp

To Pittsburgh Plate Glass Co.
Safety
Creighton, Pa.

and oblige
Pittsburgh Plate Glass Co.

1171 Superintendent

[fol. 1172] **PLAINTIFF'S EXHIBIT NO. 5-A**

Original Order No. 4854 of Fleetwood Body Company

(Not Printed)

(Here follow 2 photos, side folios 1173 and 1174.)

PLAINTIFF'S EXHIBIT NO. 6.

GOODS SHIPPED AT PURCHASER'S RISK OF BREAKAGE, UNLESS INSURANCE IS SPECIFICALLY EFFECTED
ALL CLAIMS MUST BE MADE WITHIN THREE DAYS FROM RECEIPT OF GOODS

Pittsburgh Plate Glass Company.

GLASS - MIRRORS - PAINTS

TERMS 30 DAYS NET
1% CASH 10 DAYS

1902 FRICK BLDG.

CABLE ADDRESS
"GLASSPIT"

PITTSBURGH, PA. Nov 1929. 19

SOLD TO Duplate Corp.
Creighton, Pa.

CAR NO

WORKS 1/8 OUR ORDER

SHIPPED TO

CASES YOUR ORDER

SHIPPED VIA

MEMO	PLATES	SIZE	QUALITY	FEET		PRICE	AMOUNT	TOTAL
			Mir Glaz. 7/64"	1/28B	11806-5-4	.39	4604.51	
				28/5	35846-3-4	.45	16130.85	
				5/7	3175-8-0	.49	1556.08	
				7/10	983-0-8	.51	501.36	
			Glaz. 7/64"	1/28A	83-0-0	.21	17.43	
				1/28B	21070-9-4	.35	7374.77	
				28/5	114624-6-4	.39	44703.97	
				28/5A	30-6-8	.39	11.92	
				5/7	10128-7-0	.42	4254.00	
				7/10	2494-10-8	.43	1072.80	
				10/15	893-6-0	.44	393.14	
			silv. 1. 7/64"	1/28A	31-6-0	.36	11.34	
				1/28B	10-0-0	.49	4.90	
				28/5	60-0-0	.55	33.00	
				5/7	57-4-0	.61	34.97	
			Mir Glaz. "	1/28A	332-6-0	.26	86.45	
				1/28B	6150-0-0	.39	2398.50	
				28/5	14360-2-0	.45	6462.08	
				5/7	9242-5-4	.49	4528.80	
				7/10	740-4-8	.51	377.60	
							94558.56	
					less 10%		85102.61	
					less 1%		851.03	
								$84251.58

Paid in duplicate

12/4/29 Voucher 5765

PLAINTIFF'S EXHIBIT NO. 6-A.

GOODS SHIPPED AT PURCHASER'S RISK OF BREAKAGE UNLESS INSURANCE IS SPECIFICALLY EFFECTED
ALL CLAIMS MUST BE MADE WITHIN THREE DAYS FROM RECEIPT OF GOODS

Pittsburgh Plate Glass Company.

GLASS - MIRRORS - PAINTS

TERMS: 30 DAYS NET ~~2% CASH 10 DAYS~~ 2225 GRANT BLDG. CABLE ADDRESS "GLASSPIT"

PITTSBURGH, PA. June 19

SOLD TO Pittsburgh Safety Glass Co.
Creighton, Pa.

CAR NO.

WORKS OUR ORDER

SHIPPED TO

CASES YOUR ORDER

SHIPPED VIA

MEMO	PLATES	SIZE	QUALITY	FEET		PRICE	AMOUNT	TOTAL
			Glas 1/8" Stock	1/28a	1218-0-0	20	243.60	
			for Fisher Body	1/28b	902-6-0	30	270.75	
				28/5	36906-8-4	33	12178.88	
				5/7	8618-4-0	36	3102.60	
			Glas 1/8"	1/28b	8-4-0	30	2.50	
			Silv. II 7/64	1/28b	12-2-8	39	4.77	
				28/5a	6-1-4	44	2.68	
				28/5	188-8-8	44	83.04	
				5/7	33-0-0	49	16.17	
			Glas 7/64	4"	741-4-4	18	133.44	
				6"	30-6-0	18	5.49	
				7"	23-1-8	18	4.17	
				8"	266-2-8	18	47.92	
				9"	6-6-0	18	1.17	
				1/28a	685-2-8	20	137.04	
				1/28b	1065-11-4	30	319.78	
				28/5a	5-6-8	33	1.83	
				28/5	11420-11-4	33	3768.91	
				5/7	1513-0-4	36	544.69	
				7/10	608-1-4	37	224.26	
				10/15	70-6-0	38	26.79	
			Fl[illegible]4	9"	225-0-0	18	40.50	
			Gla[illegible]/64	1/28a	4-0-0	20	.80	
			forFisher Body	1/28b	2554-8-0	30	766.40	
				28/5	20205-3-8	33	6667.75	
				5/7	1791-10-8	36	645.06	
								$29341.01

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[fol. 1175] **PLAINTIFF'S EXHIBIT NO. 7**

Sample of Pink Slips

(Not Printed)

PLAINTIFF'S EXHIBIT NO. 7-A

Sample of Duplicate Slips

(Not Printed)

PLAINTIFF'S EXHIBIT NO. 7-B

Sample of Shop Ticket Slips

(Not Printed)

PLAINTIFF'S EXHIBIT NO. 7-C

Sample of Triplicate Slips

(Not Printed)

PLAINTIFF'S EXHIBIT NO. 7-D

Sample of Quadruplicate Slips

(Not Printed.)

(Here follow 3 photos, side folios 1176, 1177 and 1178.)

PLAINTIFF'S EXHIBIT NO. 8.

PITTSBURGH SAFETY GLASS COMPANY

CREIGHTON, PENNA. JANUARY, 1929

ABSTRACT OF STOCK AND DEPARTMENTAL ACCOUNTS REGULAR DUPLATE

			FEET	PRICE	AMOUNT
7/64" POLISHED PLATE GLASS A/C					
Inventory on hand 1/1/29			44656	.42405	18940.60
Received Current Month	Works #1	792346			
	Reclamation	-	792346	.41820	331369.48
			837011	.41851	350300.08
Deduct Shrinkage		61341			
Stock Loss		967			
Transferred to A. D. Reg. Duplate		734216			
A. D. Bullet Proof		-			
Research		-			
Total transferred			796514	"	333361.56
Inventory at close of month			40497	"	16948.53
ASSEMBLING DEPARTMENT					
Inventory on hand 1/1/29			4171	1.1045	4606.87
Assembled Glass Production			367108	1.2714	466728.10
Total			371279	1.2696	471334.97
Transferred to Pressing Dept.			368816	"	468208.22
Inventory at close of month			2463	"	3126.75
PRESSING DEPARTMENT					
Inventory on hand 1/1/29			3207	1.7782	5702.55
Received from Assembling Dept. (Add M & L)			368816	1.3351	492403.29
Plus Rejects from Duplate Stock Account		4098	-		7390.56
Total			372023	1.3588	505496.40
Sales Rejects - Current Month			-		39858.704
			372023		545365.10
Deduct Pressing Dept. Loss			90752		No Value
			281271	1.9389	545365.10
Transferred to Research Experiments		159			308.29
" " Edging Department		280228			543342.79
Total transferred			280387	"	543651.08
Inventory at close of month			884	"	1714.02
RECLAMATION DEPARTMENT					
Received from Salvage Stock			18917	-	No Value
Material and labor reclaiming			-		8053.06
Total			18917	.0426	8053.06
Deduct Shrinkage			7153		No Value
			11764	.0685	8053.06
Transferred to Edging Department			11764		8053.06
Inventory on hand 1/31/29			-		-
EDGING DEPARTMENT					
Inventory on hand 1/1/29			17261	1.7782	30675.43
Received from Reclamation Dept.			11764	.6685	8053.06
Received from Pressing Dept.			280228	1.9389	543342.79
Total			309243	1.8822	582071.28
Transferred to Unedged Glass a/c (Skgs.)		4984-0	9324.64		
Rough Edge a/c "		4459-6	8398.88		
Smooth " a/c "		421-6	793.36		
Polished " a/c "		74-0	139.29		
Duplate Stock-Unedged		166011-0	312473.48		
" " Edged		111280-0	209456.29		
Total transferred			287200		540590.84
Inventory at close of month			22043		41490.36

PITTSBURGH SAFETY GLASS COMPANY

Sheet -2-

CREIGHTON, PENNA. JANUARY 1929

ABSTRACT OF STOCK AND DEPARTMENTAL ACCOUNTS REGULAR DUPLATE

				FEET	PRICE	AMOUNT
DUPLATE STOCK - REGULAR GLASS ACCOUNT						
Inventory on hand 1/1/29				39804-3	1.7938	69835.66
Received from Edging Dept. (Add M & L)				1466011-0		2611468.15
Sales Rejects (6345-5)						(11308.50)
				1505815-3		2669995.31
Unedged Glass Shrinkage-E. D. (4954)			9324.66			(9324.66)
				1496491-3	2.0868	3120670.81
Transferred to	Processing Dept. Rej.in stock	3326	7266.84			
	Industrial Samples	96-81	195.49			
	Duplate Experiment					
	Cost of Sales	163266-10	329084.65			
				166689-9		336146.98
Total Transferred				36345-4		73805.09
Inventory at close of month						
DUPLATE STOCK - REGULAR GLASS ACCOUNT						
Inventory on hand 1/1/29				39566-3	1.7938	69181.77
Received from Edging Dept.				111280-0	1.8022	200656.78
Total				150846-3	1.8975	286438.04
Deduct Loss in Stock (No Salvage)						
Transferred to	Processing Dept.Rej. in Stock	772	1421.28			
	Rough Edge Account Rej. "	341	631.97			
	Smooth " " " "	32	59.68			
	Polished" " " "	4	7.53			
	Industrial Samples	39	72.53			
	Duplate Experiment	-				
	Cost of Sales	127638-3	237345.13			
				128818-3		239736.64
Total Transferred				21828-0		39181.43
Inventory at close of month						

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PITTSBURGH SAFETY GLASS COMPANY

CREIGHTON, PENNA. JANUARY, 1929

ABSTRACT OF STOCK AND DEPARTMENTAL ACCOUNTS REGULAR DUPLATE

				LIN. IN.	PRICE	AMOUNT
ROUGH EDGE ACCOUNT						
Inventory on hand 1/1/29				764498	25.40363	19421.03
Roughed Current Month				1861238	3.03243	5645.94
Total				2625736	9.54665	25066.97
Glass Shrinkage - Operating (4428-6)				-		8393.88
Plus Rejects from Duplate Stock a/c (261)				-		628.87
Sales Rejects - Current Month (3828)				-		6866.90
	Smooth Edge a/c	1042	16.26	2625736	15.59815	40966.62
	Polished " "	163	2.54			
Transferred	Cost of Sales	2212818	34517.35			
to	Research Dept.	14448	225.36			
	Industrial Samples	322	5.65			
	Loss in Stock	-				
Total transferred at above average				2228231	"	34787.80
Inventory at close of month				396808	"	6189.42
SMOOTH EDGE ACCOUNT						
Inventory on hand 1/1/29				686436	7.02945	4826.27
Smoothed Current Month				1720058	3.71496	6389.97
Total				2406489	4.58041	11216.24
Glass Shrinkage - Operating (421-6)				-		793.36
Rough Edge Loss on Smooth Edge Skge.				-		16.76
Plus Rejects from Duplate Stock (32)				-		69.01
Sales Rejects - Current Month (362)				-		845.14
	Polished Edge a/c	163	.86	2406489	5.29108	12732.41
	Cost of Sales	2007482	10621.71			
Transferred	Research Dept.	12064	63.83			
to	Industrial Samples	362	1.92			
	Loss in Stock	-				
Total transferred at above average				2020077	"	10688.32
Inventory at close of month				386418	"	2044.09
POLISHED EDGE ACCOUNT						
Inventory on hand 1/1/29				688180	3.54098	2426.14
Polished Current Month				1721146	1.87954	3235.00
Total				2406326	2.35261	5661.14
Glass Shrinkage - Operating (74-0)				-		159.21
Rough Edge Loss on Pol. Edge Skge.				-		2.54
Smooth " " " " "				-		.86
Plus Rejects from Duplate Stock (4)				-		7.28
Sales Rejects - Current Month (68)				-		114.48
	Cost of Sales	2007482	4943.89	2406326	2.46258	5928.70
Transferred	Research Dept.	12064	28.71			
to	Industrial Samples	362	.89			
	Loss in Stock	-				
Total transferred at above average				2019908	"	4974.19
Inventory at close of month				386418	"	951.51

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[fol. 1179] **PLAINTIFF'S EXHIBIT NO. 9**

Duplate Corporation

Statements

January, 1929

Lybrand Ross Bros. & Montgomery, Accountants and Auditors

Pittsburgh Office

March 30, 1931.

Index

	Orig. Mss. pages	Printed pages
Schedule of Gross Sales, Allowances and Adjustments, and Net Sales	1-3	933
Returned Sales	4	934
Income Account	5	935
Cost of Duplate Sales	6	936
Detail of Contested Items Eliminated from Cost of Duplate Sales	7	937
Detail of Various Expenses (Prepared from Company's report)	8-9	938

DUPLATE

SCHEDULE of GROSS SALES, ALLOWA

Jan

Number of Invoices	Invoiced to	Shipped to	Car Manufacturer	Quality	Gross Sales Duplate Corporation to Pittsburgh Plate Glass Company: Area	Amount	Rate per Sq.ft.	Gross Sales Pittsburgh Plate Glass Company to Customers: Area	Amount	Rate per Sq.ft.
4	Detroit Warehouse	Ainsworth Manufacturing Co.	Dodge	Plate	204-2	$510.41	$2.50	204-2	$510.41	$2.50
			Chrysler	"	583-4	1 458.34	2.50	583-4	1 458.34	2.50
			"	"	1 638-0	4 095.00	2.50	1 638-0	4 095.00	2.50
								Edgework	394.80	
1	do	Briggs Manufacturing Co.	"	"	8 503-6	17 007.00	2.00	8 503-6	17 007.00	2.00
19	do	Chrysler Corp.	"	"	83-4	200.00	2.40	83-4	200.00	2.40
1	do	do	"	"	134-10	337.08	2.50	134-10	337.08	2.50
1	do	Jos. N. Smith & Co.	"	"	505-6	1 011.00	2.00	505-6	1 011.00	2.00
2	do	Dodge Bros.	Dodge	"						
4	Indianapolis	Martin Parry Corp.	Studebaker	"	3 138-4	7 845.84	2.50	3 138-4	7 845.84	2.50
4	Fisher Body Corp.	Fisher Body Corp.		"	1 323-3	2 315.69	1.75	1 323-3	2 315.69	1.75
17	do	do		"	92 436-6	161 763.88	1.75	92 436-6	173 291.57	1.87
15	Fleetwood Body Corp.	Fleetwood Body Corp.		"	1 328-5	2 324.74	1.75	1 328-5	2 324.74	1.75
								Edgework	226.87	
26	Detroit Warehouse	Motor Products Corp.	Hudson	"	74 515-3	186 288.13	2.50	74 515-3	186 288.13	2.50
	do	do	Fisher Body	"	20-5	51.05	2.50	20-5	51.05	2.50
	do	do	Chrysler	"	296-8	741.68	2.50	296-8	741.68	2.50
3	do	Murray Corp.	"	"	997-2	2 492.93	2.50	997-2	2 492.93	2.50
								Edgework	270.00	
14	Buffalo Warehouse	Pierce-Arrow	Pierce-Arrow	"	26 461-5	52 922.84	2.00	26 461-5	52 922.84	2.00
8	Detroit Warehouse	Jos. N. Smith & Co.	Chrysler	"	2 160-5	5 401.05	2.50	2 160-5	5 401.05	2.50
			Pierce-Arrow	"	3 300-0	8 250.00	2.50	3 300-0	8 250.00	2.50
10	Chicago Warehouse	Studebaker Corp.	Studebaker	"	50 383-7	100 767.16	2.00	50 383-7	100 767.16	2.00
1	do	do	"	"	0-11	1.38	1.50	0-11	1.38	1.50
5	Cincinnati Warehouse	Troy Sun Shade Co.	Pierce-Arrow	"	159-10	399.59	2.50	159-10	399.59	2.50
					915-5	2 288.54	2.50	915-5	2 288.54	2.50

Continued

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DUPLATE

SCHEDULE of GROSS SALES, ALLOWA

January,

Number of Invoices	Invoiced to	Shipped to	Car Manufacturer	Quality	Gross Sales Duplate Corporation to Pittsburgh Plate Glass Company: Area	Amount	Rate per Sq.ft.	Gross Sales Pittsburgh Plate Glass Company to Customers: Area	Amount	Rate per Sq.ft.
	Amesbury Br. & Foundry Co.	Amesbury Br. & Foundry Co.	Hudson	Plate	11 504-1	$28 760.20	$2.50	11 504-1	$28 760.20	$2.50
	Detroit	Locke & Co.	Chrysler	"	945-2	2 362.93	2.50	945-2	2 362.93	2.50
	Cleveland	B. & B. Manufacturing Co.		"	49-5	123.55	2.50	49-5	123.55	2.50
	Detroit	American Car & Foundry Co.		"	109-8	274.18	2.50	109-8	274.18	2.50
	L. I. City	Watson Flagg Engineering Co.		"	186-0	279.00	1.50	186-0	279.00	1.50
	Other customers:			"	563-11	1 409.79	2.50	563-11	1 409.79	2.50
				"	38-11	116.75	3.00	38-11	116.75	3.00
				"	85-0	218.13		85-0	218.13	

19	"	do	"	"	136-10	399.89	2.50	505-6	1 011.00	2.00	
1	do	do									
1	do	Jos. N. Smith & Co.	Dodge	"	505-6	1 011.00	2.00				
2	do	Dodge Bros.	Studebaker	"	3 138-4	7 845.84	2.50	3 138-4	7 845.84	2.50	
4	Indianapolis	Martin Parry Corp.		"	1 323-3	2 315.69	1.75	1 323-3	2 315.69	1.75	
4	Fisher Body Corp.	Fisher Body Corp.		"	92 436-6	161 765.88	1.75	92 436-6	175 291.87	1.89	
17	do	do									
15	Fleetwood Body Corp.	Fleetwood Body Corp.		"	1 328-5	2 324.74	1.75	1 328-5 Edgework	2 324.74 226.87	1.75	
26	Detroit Warehouse	Motor Products Corp.	Hudson	"	74 815-3	186 288.13	2.50	74 815-3	186 288.13	2.50	
	do	do	Fisher Body	"	20-8	51.05	2.50	20-8	51.05	2.50	
	do	do	Chrysler	"	296-8	741.68	2.50	296-8	741.68	2.50	
3	do	Murray Corp.	"	"	997-2	2 492.93	2.50	997-2 Edgework	2 492.93 270.00	2.50	
14	Buffalo Warehouse	Pierce-Arrow	Pierce-Arrow	"	26 461-8	52 922.84	2.00	26 461-8	52 922.84	2.00	
8	Detroit Warehouse	Jos. N. Smith & Co.	Chrysler	"	2 160-5	5 401.05	2.50	2 160-5	5 401.05	2.50	
			Pierce-Arrow	"	3 300-0	8 250.00	2.50	3 300-0	8 250.00	2.50	
10	Chicago Warehouse	Studebaker Corp.	Studebaker	"	50 383-7	100 767.16	2.00	50 383-7	100 767.16	2.00	
1	do	do	"	"	0-11	1.38	1.50	0-11	1.38	1.50	
5	Cincinnati Warehouse	Troy Sun Shade Co.	Pierce-Arrow	"	139-10	399.89	2.50	139-10	399.89	2.50	
				"	915-5	2 288.54	2.50	915-8	2 288.54	2.50	

Continued
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DUPLAT

SCHEDULE of GROSS SALES, ALLOW

January,

Number of Invoices	Invoiced to	Shipped to	Car Manufacturer	Quality	Gross Sales Duplate Corporation to Pittsburgh Plate Glass Company Area	Amount	Rate per Sq.ft.	Gross Sales Pittsburgh Plate Glass Company to Customers Area	Amount	Rate per Sq.ft
	Amesbury Br. & Foundry Co.	Amesbury Br. & Foundry Co.	Hudson	Plate	11 304-1	$28 760.20	$2.50	11 304-1	$28 760.20	$2.50
	Detroit	Locke & Co.	Chrysler	"	945-2	2 362.93	2.50	945-2	2 362.93	2.50
	Cleveland	B. & B. Manufacturing Co.		"	49-5	123.55	2.50	49-5	123.55	2.50
	Detroit	American Car & Foundry Co.		"	109-8	274.18	2.50	109-8	274.18	2.50
	L. I. City	Watson Flagg Engineering Co.		"	186-0	279.00	1.50	186-0	279.00	1.50
	Other customers:			"	563-11	1 409.79	2.50	563-11	1 409.79	2.50
				"	38-11	116.75	3.00	38-11	116.75	3.00
				"	85-0	218.13		85-0	218.13	
				"	14-7	36.46	2.50	14-7	25.52	1.75
				Bullet proof	3-5	18.79	5.50	3-5	23.94	7.00
				Plate	64-10	129.67	2.00	64-10	129.67	2.00
	Shipments to Pittsburgh Plate Glass Co. Warehouses:			"	5 317-6	11 964.38	2.25	5 317-6	11 964.38	2.25
				"	831-7	2 078.98	2.50	831-7	2 078.98	2.50
				"	369-7	554.37	1.50	369-7	554.39	1.50
				"	50-0	88.50	1.75	50-0	88.50	1.75
				"	828-10	2 072.08	2.50	828-10	2 072.08	2.50
				Bullet proof	97-5	535.79	5.50	97-5	681.94	7.00
				Plate	52-0	62.40	1.20	52-0	62.40	1.20

Continued
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DUPLATE CORPORATION

SCHEDULE of GROSS SALES, ALLOWANCES and ADJUSTMENTS, and NET SALES,

January, 1929.

Gross Sales: Duplate Corporation to Pittsburgh Plate Glass Company — Area	Amount	Rate per Sq.ft.	Gross Sales: Pittsburgh Plate Glass Company to Customers — Area	Amount	Rate per Sq.ft.	Allowances and Adjustments — Area	Amount	Rate per Sq.ft.	Sales, net of Allowances and Adjustments, but before Returns: Pittsburgh Plate Glass Company to Customers — Area	Amount	Rate per Sq.ft.	Cost, based upon averages per foot shown in Income Account	Profits	Losses
204-2	$510.41	$2.50	204-2	$510.41	$2.50	204-2	$102.08	$.50	204-2	$408.33	$2.00	$287.66	$120.67	
583-4	1 458.34	2.50	583-4	1 458.34	2.50	583-4	291.67	.50	583-4	1 166.67	2.00	821.91	344.76	
1 638-0	4 095.00	2.50	1 638-0	4 095.00	2.50	1 638-0	819.00	.50	1 638-0	3 670.80	2.241	2 307.94	1 362.86	
			Edgework	394.80										
8 503-6	17 007.00	2.00	8 503-6	17 007.00	2.00				8 503-6	17 007.00	2.00	11 981.43	5 025.57	
83-4	200.00	2.40	83-4	200.00	2.40				83-4	200.00	2.40	117.41	82.59	
134-10	337.08	2.50	134-10	337.08	2.50				134-10	337.08	2.50	189.98	147.10	
505-6	1 011.00	2.00	505-6	1 011.00	2.00				505-6	1 011.00	2.00	712.25	298.75	
3 138-4	7 845.84	2.50	3 138-4	7 845.84	2.50	3 138-4	1 569.17	.50	3 138-4	6 276.67	2.00	4 421.91	1 854.76	
1 323-3	2 315.69	1.75	1 323-3	2 315.69	1.75				1 323-3	2 315.69	1.75	1 864.46	451.23	
92 436-6	161 763.88	1.75	92 436-6	173 291.57	1.896				92 436-6	173 291.57	1.896	130 243.03	45 048.54	
1 328-5	2 324.74	1.75	1 328-5	2 324.74	1.75				1 328-5	2 551.61	1.921	1 871.76	679.85	
			Edgework	226.87										
74 515-3	186 288.13	2.50	74 515-3	186 288.13	2.50	74 515-3	37 257.63	.50	74 515-3	149 030.50	2.00	104 991.99	44 038.51	
20-5	51.05	2.50	20-5	51.05	2.50	20-5	15.51	.75	20-5	38.74	1.75	28.77	6.97	
296-8	741.68	2.50	296-8	741.68	2.50	296-8	148.33	.50	296-8	593.35	2.00	418.01	175.34	
997-2	2 492.93	2.50	997-2	2 492.93	2.50	1 247-5	623.72	.50	997-2	2 139.21	2.145	1 405.00	734.21	
			Edgework	270.00										
26 461-5	52 922.84	2.00	26 461-5	52 922.84	2.00				26 461-5	52 922.84	2.00	37 284.14	15 638.70	
2 160-5	5 401.05	2.50	2 160-5	5 401.05	2.50	2 160-5	1 080.21	.50	2 160-5	4 320.84	2.00	3 044.03	1 276.81	
3 300-0	8 250.00	2.50	3 300-0	8 250.00	2.50	3 300-0	1 650.00	.50	3 300-0	6 600.00	2.00	4 649.70	1 950.30	
50 383-7	100 767.16	2.00	50 383-7	100 767.16	2.00				50 383-7	100 767.16	2.00	70 990.46	29 776.70	
0-11	1.38	1.50	0-11	1.38	1.56				0-11	1.38	1.50	1.30	.08	
159-10	399.59	2.50	159-10	399.59	2.50	159-10	79.92	.50	159-10	319.67	2.00	225.20	94.47	
915-5	2 288.54	2.50	915-5	2 288.54	2.50				915-5	2 288.54	2.50	1 290.05	998.49	

Continued

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Continued

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DUPLATE CORPORATION

SCHEDULE of GROSS SALES, ALLOWANCES and ADJUSTMENTS, and NET SALES,

January, 1929, Continued.

Gross Sales: Duplate Corporation to Pittsburgh Plate Glass Company — Area	Amount	Rate per Sq.ft.	Gross Sales: Pittsburgh Plate Glass Company to Customers — Area	Amount	Rate per Sq.ft.	Allowances and Adjustments — Area	Amount	Rate per Sq.ft.	Sales, net of Allowances and Adjustments, but before Returns: Pittsburgh Plate Glass Company to Customers — Area	Amount	Rate per Sq.ft.	Cost, based upon averages per feet shown in Income Account	Profits	Losses
504-1	$28 760.20	$2.50	11 504-1	$28 760.20	$2.50	11 504-1	$5 752.04	$.50	11 504-1	$23 008.16	$2.00	$16 209.25	$6 798.91	
945-2	2 362.93	2.50	945-2	2 362.93	2.50	916-8	458.33	.50	916-8	1 833.35	2.00	1 291.59	541.76	
									28-6	71.25	2.50	40.16	31.09	
49-5	123.55	2.50	49-5	123.55	2.50				49-5	123.55	2.50	69.63	53.92	
109-8	274.18	2.50	109-8	274.18	2.50				109-8	274.18	2.50	154.53	119.65	
186-0	279.00	1.50	186-0	279.00	1.50				186-0	279.00	1.50	262.07	16.93	
563-11	1 409.79	2.50	563-11	1 409.79	2.50				563-11	1 409.79	2.50	794.56	615.23	
38-11	116.75	3.00	38-11	116.75	3.00				38-11	116.75	3.00	54.84	61.91	
88-0	218.13		88-0	218.13					88-0	218.13	2.566	119.77	98.36	
[illegible]	[illegible]	[illegible]	14-7	98.82	1.75				14-7	98.82	1.75	[illegible]	[illegible]	

2 315.69	1.75	1 323-3	2 315.69	1.75				1 323-3	2 315.69	1.75	1 864.46	451.23	
161 765.88	1.75	92 436-6	175 291.57	1.896				92 436-6	175 291.57	1.896	130 243.03	45 048.54	
2 324.74	1.75	1 328-5	2 324.74	1.75				1 328-5	2 531.41	1.921	1 871.76	679.65	
		Edgework	226.67										
186 288.13	2.50	74 515-3	186 288.13	2.50	74 515-3	37 237.65	.50	74 515-3	149 030.50	2.00	104 991.99	44 038.51	
51.05	2.50	20-5	51.05	2.50	20-5	15.31	.75	20-5	38.74	1.75	28.77	6.97	
741.68	2.50	296-8	741.68	2.50	296-8	148.33	.50	296-8	595.36	2.00	418.01	175.34	
2 492.93	2.50	997-2	2 492.93	2.50	1 247-5	623.72	.50	997-2	2 139.21	2.145	1 405.00	734.21	
		Edgework	270.00										
52 922.84	2.00	26 461-5	52 922.84	2.00				26 461-5	82 922.84	2.00	37 284.14	15 638.70	
5 401.05	2.50	2 160-5	5 401.05	2.50	2 160-5	1 080.21	.50	2 160-5	4 320.84	2.00	3 044.03	1 276.81	
8 250.00	2.50	3 300-0	8 250.00	2.50	3 300-0	1 650.00	.50	3 300-0	6 600.00	2.00	4 649.70	1 950.30	
100 767.16	2.00	50 383-7	100 767.16	2.00				50 383-7	100 767.16	2.00	70 990.46	29 776.70	
1.38	1.50	0-11	1.38	1.86				0-11	1.38	1.50	1.30	.08	
399.89	2.50	159-10	399.89	2.50	159-10	79.92	.50	159-10	319.67	2.00	225.20	94.47	
2 288.54	2.50	915-8	2 288.54	2.50				915-8	2 288.54	2.50	1 290.05	998.49	

Continued
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DUPLATE CORPORATION

SCHEDULE of GROSS SALES, ALLOWANCES and ADJUSTMENTS, and NET SALES,

January, 1929, Continued.

Gross Sales — Duplate Corporation to Pittsburgh Plate Glass Company		Gross Sales — Pittsburgh Plate Glass Company to Customers			Allowances and Adjustments			Sales, net of Allowances and Adjustments, but before Returns — Pittsburgh Plate Glass Company to Customers			Cost, based upon average per foot shown in Income Account	Profits	Losses
Amount	Rate per Sq.ft.	Area	Amount	Rate per Sq.ft.	Area	Amount	Rate per Sq.ft.	Area	Amount	Rate per Sq.ft.			
$28 760.20	$2.50	11 504-1	$28 760.20	$2.50	11 504-1	$5 752.04	$.50	11 504-1	$23 008.16	$2.00	$16 209.25	$6 798.91	
2 362.93	2.50	945-2	2 362.93	2.50	946-8	458.33	.50	916-8	1 833.35	2.00	1 291.59	541.76	
								28-6	71.25	2.50	40.16	31.09	
123.55	2.50	49-5	123.55	2.50				49-5	123.55	2.50	69.63	53.92	
274.18	2.50	109-8	274.18	2.50				109-8	274.18	2.50	154.53	119.65	
279.00	1.50	186-0	279.00	1.50				186-0	279.00	1.50	262.07	16.93	
1 409.79	2.50	563-11	1 409.79	2.50				563-11	1 409.79	2.50	794.56	615.23	
116.75	3.00	38-11	116.75	3.00				38-11	116.75	3.00	54.84	61.91	
218.13		85-0	218.13					85-0	218.13	3.566	119.77	98.36	
36.46	2.50	14-7	25.52	1.75				14-7	25.52	1.75	20.54	4.98	
18.79	5.50	3-5	23.94	7.00				3-5	23.94	7.00	16.24	7.70	
129.67	2.00	64-10	129.67	2.00				64-10	129.67	2.00	91.35	38.32	
11 964.38	2.25	5 317-6	11 964.38	2.25				5 317-6	11 964.38	2.25	7 492.36	4 472.02	
2 078.98	2.50	831-7	2 078.98	2.50				831-7	2 078.98	2.50	1 171.70	907.28	
554.37	1.50	369-7	554.39	1.50				369-7	554.39	1.50	520.74	33.65	
88.50	1.75	50-0	88.50	1.75				50-0	88.50	1.75	70.45	18.05	
2 072.08	2.50	828-10	2 072.08	2.50				828-10	2 072.08	2.50	1 167.82	904.26	
535.79	5.50	97-5	681.94	7.00				97-5	681.94	7.00	461.43	220.51	
62.40	1.20	52-0	62.40	1.20				52-0	62.40	1.20	73.27		$10.87

Continued
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DUPLATE

SCHEDULE of GROSS SALES, ALLOWA

January, 192

Number of Invoices	Invoiced to	Shipped to	Car Manufacturer	Quality	Gross Sales Duplate Corporation to Pittsburgh Plate Glass Company: Area	Amount	Rate per Sq.ft.	Gross Sales Pittsburgh Plate Glass Company to Customers: Area	Amount	Rate per Sq.ft.
	Shipments to Pittsburgh Plate Glass Co. Warehouses, continued:									
				Plate	89-3	$223.13	$2.50	89-3		
4	W. P. Fuller & Co.	W. P. Fuller & Co.		"	82-0	205.00	2.50	82-0	$246.00	$3.00
1	Duplate Safety Glass Co. of Canada	Duplate Safety Glass Co. of Canada		"	3-10	9.58	2.50	3-10	8.62	2.25
	Sundry customers:			"	3-9	9.37	2.50	3-9	6.56	1.75
				"	61-5	122.85	2.00	61-5	122.85	2.00
				"	521-1	1 302.71	2.50	521-1	1 302.71	2.50
				"	25-9	56.50		25-9	56.50	
				Bullet proof	7-0	38.50	5.50	7-0	49.00	7.00
	Samples:									
				Plate	145-0			145-0		
				"	0-11			0-11	1.38	1.50
				"	5-2 42-0	100.00		5-2 42-0	8.40 48.10	
	Edgework on Fisher Body and Fleetwood Body Corp. shipments included in Duplate Corp. monthly billing to Pittsburgh Plate Glass Co. not apportioned					13 823.96				
	Allowance, Fisher Body, edgework on glass returned									
	Miscellaneous warehouses, &c.									
	†In Rem on Original Exhibit				291 189-4	$625 450.86		291 189-4	$625 969.12	

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DUPLATE CORPORATION

RETURNED SALES

January, 1929.

Returned by:	Car Manufacturer	Quality	Area	Amount	Rate per sq.ft
Fisher Body Corp.		Plate	27 948-3	$48 909.43	$1.75
Chrysler Corp.		do	3 000-3	6 000.50	2.00
Fleetwood Body Corp.		do	128-6	224.88	1.75
Motor Products Corp.	Fisher Body	do	503-0	880.25	1.75
do	Hudson	do	749-0	1 498.00	2.00
Murray Body Corp.		do	47-9	119.38	2.50
Troy Sun Shade Co.		do	68-5	171.04	2.50
W. P. Fuller Co.		do	22-11	57.29	2.50
Freight on above returns				73.07	
Miscellaneous to warehouses		do	356-9	762.00	2.14
Total returned sales, per annexed income account			32 824-10	$58 696.84	

DUPLATE CORPORATION

SCHEDULE of GROSS SALES, ALLOWANCES and ADJUSTMENTS, and NET SALES,

January, 1929, Continued.

	Gross Sales Duplate Corporation to Pittsburgh Plate Glass Company		Gross Sales Pittsburgh Plate Glass Company to Customers			Allowances and Adjustments			Sales, net of allowances and Adjustments, but before Returns Pittsburgh Plate Glass Company to Customers			Cost, based upon averages per foot shown in Income Account	Profits	Losses
	Amount	Rate per Sq.ft.	Area	Amount	Rate per Sq.ft.	Area	Amount	Rate per Sq.ft.	Area	Amount	Rate per Sq.ft.			
9-3	$223.15	$2.50	89-3						89-3					
8-0	205.00	2.50	82-0	$246.00	$3.00				82-0	$246.00	$3.00	$115.84	$130.46	
3-10	9.58	2.50	3-10	8.62	2.25				3-10	8.62	2.25	5.40	3.22	
3-9	9.37	2.50	3-9	6.56	1.75				3-9	6.56	1.75	5.28	1.28	
1-5	122.83	2.00	61-5	122.83	2.00				61-5	122.83	2.00	86.77	36.06	
1-1	1 302.71	2.50	521-1	1 302.71	2.50				521-1	1 302.71	2.50	734.20	568.51	
5-9	56.50		25-9	56.50					25-9	56.50	2.194	36.28	20.22	
7-0	38.50	5.50	7-0	49.00	7.00				7-0	49.00	7.00	33.15	15.85	
1-8			145-0						145-0					
1-11			0-11	1.38	1.50				0-11	1.38	1.50	1.30	.08	
1-2 } 1-0 }	100.00		5-2 } 42-0 }	8.40 48.10					5-2 42-0	8.40 48.10	1.626 1.145	7.27 59.18	1.13	$11.08
	13 823.96													
-							$4 090.58			4 090.58†				4 090.58
-							35.65			35.65†				35.65
-5	$625 450.86		291 189-4	$625 969.12			$53 973.64		291 189-4	$571 996.48		$410 315.06	$165 828.60	$4 148.18

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DUPLATE CORPORATION

RETURNED SALES

January, 1929.

Returned by:	Car Manufacturer	Quality	Area	Amount	Rate per sq.ft
Fisher Body Corp.		Plate	27 948-3	$48 909.43	$1.75
Chrysler Corp.		do	3 000-3	6 000.50	2.00
Fleetwood Body Corp.		do	128-6	224.88	1.75
Motor Products Corp.	Fisher Body	do	503-0	880.25	1.75
do	Hudson	do	749-0	1 498.00	2.00
Murray Body Corp.		do	47-9	119.38	2.50
Troy Sun Shade Co.		do	68-5	171.04	2.50
W. P. Fuller Co.		do	22-11	57.29	2.50
Freight on above returns				73.07	
Miscellaneous to warehouses		do	356-9	762.00	2.14
Total returned sales, per annexed income account			32 824-10	$58 695.84	

DUPLATE CORPORATION

INCOME ACCOUNT, January, 1929.

	Total	Contested Items of Cost and Expense	Duplate Amount	Duplate Average per foot	Bullet Proof Amount	Bullet Proof Average per foot
Area: Gross sales	291 053-5		290 945-6		107-11	
Returns	32 824-10		32 824-10		-	
Net sales	258 228-7		258 120-8		107-11	
Gross sales, net of allowances and adjustments	$571 436.75		$570 843.21	$1.96202	$593.54	$5.50
Cost of gross sales	558 127.03	$173 792.44	383 833.18	1.31926	501.41	4.64613
Gross profit on gross sales	$13 309.72	$173 792.44	$187 010.03		$92.13	
Packing and shipping	5 387.70					
Rent	500.00					
General expense	4 099.52					
Interest on investment	5 000.00					
Taxes	666.66		26 110.71		9.69	
Depreciation	4 381.24					
Amortization	2 416.66					
Obsolescence	3 668.62					
Portion of general expense, representing reduction in cost of duplate samples	102.01	102.01				
Portion of experimental expense, representing reduction in cost of duplate stock	300.49	300.49				
Experimental expense	5 960.13	5 960.13				
Expenses of Triplex Patent Case	162.82	162.82				
Miscellaneous patent expense in general expense	26.70	26.70				
Mellon Institute Fellowship	1 875.00	1 875.00				
Commissions paid to Pittsburgh Plate Glass Co.	12 502.27	12 502.27				
	$47 049.82	$20 929.42	$26 110.71	.08974	$9.69	.08974
Profit or loss† on gross sales	$53 740.10†	$194 721.86	$160 899.32		$82.44	
Average cost of gross sales per foot				$1.40900		$4.73587
Returned sales	58 695.84		58 695.84†			
Cost of returned sales, 32,824-10 feet at $1.409		46 250.19	46 250.19			
Profit or loss† on net sales	$92 435.94†	$240 972.05	$148 453.67		$82.44	

†In Red on Original Exhibit.

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DUPLATE CORPORATION

COST of DUPLATE SALES, January, 1929.

Glass		$332 674.11
Pyralin		105 071.26
Labor		41 273.93
Labor drilling		54.38
Supervision		5 482.70
Rubber bags		3 769.66
Office expense		3 827.50
Transportation		783.28
Fuel, light and power		5 893.61
Machinery repairs		2 764.78
Building repairs		150.50
Supplies		3 085.03
Water		186.88
Templates		879.93
Miscellaneous		9 026.82
Reclaiming expense		8 053.04
Decrease in inventory		35 552.01
		558 529.27
Deduct:		
Cost of Duplate transferred to experimental expense	$627.19	
Cost of Duplate transferred to advertising (samples)	276.46	903.65
Cost of Duplate sales, per Company statement		557 625.62
Less adjustment to Company cost of sales, per details annexed		173 792.41
Cost of Duplate sales, as adjusted		$383 833.21

DUPLATE CORPORATION

DETAIL of CONTESTED ITEMS ELIMINATED from

COST of DUPLATE SALES

January, 1929.

	Number of feet	Avg. per foot	Amount
Items eliminated:			
Plate glass shrinkage loss	61 341-0	$.41852	$25 672.44
Plate glass cutting loss	957-0	.41852	400.52
Pressing department loss	90 752-0	1.26309	114 627.94
Edging department loss	9 909-0	1.25403	12 426.23
Unedged Duplate glass stock rejections	3 326-0	1.27268	4 232.93
Edged Duplate glass stock rejections	1 149-0	1.22004	1 401.83
Rough edge operation loss	-	-	4.21
Smooth edge operation loss	-	-	.65
Adjustment resulting from revaluation of inventories, based on adjusted costs	-	-	22 234.12
			$181 000.87
Less:			
Adjustment of cost of Duplate transferred to general expense account (advertising):			
From unedged Duplate stock			72.13
From edged Duplate stock			24.95
From rough edge operation			4.38
From smooth edge operation			.48
From polished edge operation			.07
Adjustment of cost of Duplate transferred to experimental expense:			
From pressing department			107.46
From rough edge operation			174.84
From smooth edge operation			15.83
From polished edge operation			2.36
Adjustment of value of reclaimed Duplate charged to edging department:			
Adjusted value	11 764-0	1.26309	14 858.99
Per Company	11 764-0†		8 053.06†
			$7 208.43
Net reduction to Company's cost of Duplate sales			$173 792.44

† Original Exhibit.

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DUPLATE CORPORATION

DETAIL of VARIOUS EXPENSES

(Prepared from Company's report)

January, 1929.

Experimental Expenses:

Mechanical research, small miscellaneous:	
Office supplies	$52.87
Miscellaneous	13.62
Salary of office help and supervision	1 012.83
Mechanical supplies	51.91
General research and development:	
Tests on autoclaves	621.62
Bag clamps, construction and tests	117.16
Bag valves	9.12
Timing device for autoclaves	63.00
Pyralin blanking	1.35
Sand blasting	1.88
Miscellaneous small jobs	116.99
Tests on assembling department (new plant)	97.88
Work for other departments:	
Pyralin punching machine for small holes	2.90
Packing boxes	8.72
Inspection lights	3.03
Conveyor for spraying	2.78
Southwork hydraulic press	1.41
Pyralin washer	42.53
Glass washers	5.77
Removing separation in Duplate	1.98
Duplate cutting:	
By sawing, heating or otherwise	30.71
Stretcher device for warehous	295.86
Glass cutting by flexible shaft method	5.75
Hot wire cutting	1 100.82
Bullet proof experiments	166.85
Edge protection	80.93
Mercury pressing	139.44

Continued

DUPLEX CORPORATION

DETAIL of VARIOUS EXPENSES, Continued.

Experimental Expenses, continued:

General research:	
Miscellaneous department costs and overhead	$795.57
General research and plant control	631.07
Rubber bags	104.75
Installation of machines for experimental work	31.25
Pressed glass	336.29
Rough edged glass	228.36
Smooth edged glass	63.83
Polished edged glass	89.71
Rent of space in building at Creighton	21.60
	$6 260.63

Miscellaneous Patent Expenses:

Copies of Bill of Complaint, patents	4.20
Government filing fee, application, J. H. Sherts; Apparatus for making composite glass and recording fee	21.00
Notary fees paid at Creighton for patent affidavits	1.50
	$26.70

Triplex Case Expense:

Traveling expenses, C. H. Biesterfeld in connection with Triplex Co. suit	54.17
Study of patents and conference re Triplex suit	108.65
	$162.82

Plaintiff's Exhibit No. 9-A

PLAINTIFF'S EXHIBIT NO. 9-A.

DUPLATE CORPORATION

Pittsburgh, Penna.

REPORT upon EXAMINATION of

Account filed in

U. S. DISTRICT COURT

TRIPLEX SAFETY GLASS COMPANY of NORTH AMERICA

vs.

DUPLATE CORPORATION.

LYBRAND ROSS BROS. & MONTGOMERY

Accountants and Auditors

Pittsburgh Office

LYBRAND, ROSS BROS. & MONTGOMERY
ACCOUNTANTS AND AUDITORS
UNION BANK BUILDING
PITTSBURGH

March 31, 1931.

Triplex Safety Glass Company of North America,
Clifton, New Jersey.

Dear Sirs:

In accordance with your instructions, we have prepared from the accounts and records of the

DUPLATE CORPORATION
Pittsburgh, Pennsylvania

statements of its sales and expenses for the period from the beginning of operations in January 1928 to May 31, 1930. Prior to March 1, 1929, the Duplate Corporation operated under the name of Pittsburgh Safety Glass Company.

The purpose of our work was to amplify and explain the account filed by the Duplate Corporation in the U. S. District Court, Western District of Pennsylvania, in connection with the patent litigation case of Triplex Safety Glass Company of North America vs. Duplate Corporation.

For convenience, an income account and supporting statements for each month during the period under review have been bound and submitted separately.

Following is a reconciliation of the loss for the period to May 31, 1930, as shown by the account filed, with the aggregate loss as shown by the monthly income accounts which we prepared:

Losses per account filed by the Duplate Corporation:	
For the year ended: December 31, 1928	$560 548.01†
December 31, 1929	434 326.60†
For the five months ended May 31, 1930	21 759.57†
Total	1 016 634.20†

Profits and losses per monthly income accounts:

	1928	1929	1930
January	$5 752.25†	$92 435.94†	$22 477.81
February		121 947.66†	11 742.74†
March	4 945.72†	78 959.70†	4 [illegible].24†
April	4 217.06†	43 351.17†	21 395.93†
May	6 698.73†	79 868.92†	1 [illegible].81
June	3 151.17	91.75	
July	48 131.71†	10 449.89†	
August	50 438.19†	27 705.04	
September	117 530.50†	45 384.92	
October	141 146.97†	18 028.21	
November	75 744.42†	25 789.09†	
December	88 469.81†	61 728.80†	
	$539 924.19†	$423 321.25†	$14 150.09†
Total			977 395.51†
Excess of loss as shown by account filed by the Duplate Corporation compared with the aggregate net losses as shown on monthly income accounts			$39 238.67†

The items making up the difference of $39,238.67, are summarized as follows:

†In Red on Original Exhibit.

Adjustments decreasing the loss as shown in account filed by Duplate Corporation:

Adjustment of interest on investment:		
Interest on investment for the year 1928 included as an expense in the account filed by Duplate Corp'n	$60 000.00	
Interest on investment for the year 1928 as shown on the monthly income accounts, adjusted,	25 000.00	
Adjustment		$35 000.00
Adjustment of sales returns representing debit memoranda issued by the Pittsburgh Plate Glass Company which were not recorded on the books of the Duplate Corporation nor included in the account filed:		
Oct 1928: Debit memo to Ainsworth Mfg. Co.		4 661.22
Jun 1929: Debit memo to Amesbury Brass & Fdy. Co.		118.42
Nov 1929: Debit memo to Amesbury Brass & Fdy. Co.		169.28
Specialty sales for the five months ended May 31, 1930, net of allowances and returns, as shown by the books of the Duplate Corporation and included in the monthly income accounts but not included in the account filed by the Duplate Corporation		70 279.63
Total		110 228.55

Adjustments increasing the loss as shown in account filed by Duplate Corporation:

Cost of specialty sales for the five months ended May 31, 1930, included in the monthly income accounts but not in the account filed by Duplate Corp'n	$63 833.83	
Reduction in net sales representing credits granted by Pittsburgh Plate Glass Co. to various customers, but not credited by Duplate Corp'n:		
Applicable to July 1929 sales	$7 055.87	
Applicable to September 1929 sales	100.18	7 156.05
Total		70 989.88
Excess of loss as shown by account filed by the Duplate Corporation compared with the aggregate net losses as shown on monthly income accounts		$39 238.67

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Following is a reconciliation of the sales, net of allowances and adjustments, as shown by the account filed, with the aggregate sales, net of allowances and adjustments, as shown by the monthly income accounts which we prepared:

		Area	Amount
Per account filed by Duplate Corporation:			
Gross sales:			
For the year ended: December 31, 1928		1 081 147-3	$2 156 147.42
1929		2 301 771-3	4 364 589.77
For the five months ended May 31, 1930		692 455-8	1 128 086.58
		4 075 374-2	7 648 823.77
Allowances and adjustments:			
For the year ended December 31:			
1928	$52 297.26		
1929	38 297.08		
For the five months ended May 31, 1930	8 331.75		
			98 926.09
Sales, net of allowances and adjustments for the two years and five months ended May 31, 1930,		4 075 374-2	$7 549 897.68
Per monthly income accounts:			
Sales net of allowances and adjustments:			
For the year ended December 31: 1928		1 081 147-3	$2 087 788.55
1929		2 301 761-8	4 358 170.59
For the five months ended May 31, 1930		752 311-10	1 205 828.15
Sales, net of allowances and adjustments for the two years and five months ended May 31, 1930		4 135 220-9	$7 651 787.29
Difference		59 846-7	$101 889.61

The difference in area and amount as shown above is explained in the following summary:

Adjustments increasing the sales, net of allowances and adjustments as shown in the account filed by Duplate Corporation:

		Area	Amount
Specialty sales, net of allowances and adjustments, for the five months ended May 31, 1930, included in the monthly income accounts but not included in the account filed by Duplate Corp'n		59 856-3	$72 641.48
Credits to the Pittsburgh Plate Glass Co., representing cash discount on sales during the period from April 1, 1929 to May 31, 1930, treated as deductions from sales in the account filed by Duplate Corp'n but included as an item of expense on the monthly income accounts		-	41 692.24
Total		59 856-3	114 333.72

Adjustments decreasing the sales, net of allowances and adjustments, as shown in the account filed by Duplate Corporation:

Reduction in net sales representing credits granted by Pittsburgh Plate Glass Co. to various customers, but not credited by Duplate Corp'n:			
Applicable to July 1929 sales	$7 055.87		
Applicable to September 1929 sales	100.18		
	7 156.05		
Various credit memoranda issued by Pittsburgh Plate Glass Co. to its customers, included by Duplate Corp'n as "sales returns" and included in the monthly income accounts as "allowances and adjustments"	5 288.06		
		-	12 444.11
		59 856-3	101 889.61
Unaccounted for difference in area		9-8†	-
Difference as above		59 846-7	$101 889.61

†In Rem on Original Exhibit.

Following is a reconciliation of returned sales for the period to May 31, 1930, as shown by the account filed, with the aggregate returned sales detailed in the monthly statements we prepared, which have been submitted separately:

	Area	Amount
Per account filed by Duplate Corporation:		
Returned sales:		
For the year ended: December 31: 1928	118 695-0	$232 023.91
1929	282 410-10	542 163.08
the five months ended May 31,1930	24 918-9	46 459.97
Returned sales for the two years and five months ended May 31, 1930	426 028-7	820 646.06
Per monthly income accounts:		
Returned sales for the two years five months ended May 31, 1930	427 971-3	812 770.95
Difference	1 942-8†	$7 875.11

The items making up this difference are summarized below:

Adjustments decreasing the returned sales as shown in the account filed by Duplate Corp'n:		
Adjustment of sales returns representing debit memoranda issued by Pittsburgh Plate Glass Co. which were not recorded on the books of Duplate Corp'n nor included in the account filed:		
Oct 1928: Debit memo to Ainsworth Mfg.Co.		$4 661.22
Jun 1929: Debit memo to Amesbury Brass & Fdy Co.		118.42
Nov 1929: Debit memo to Amesbury Brass & Fdy Co.		169.28
Various credit memoranda issued by Pittsburgh Plate Glass Co. included by Duplate Corp'n as "sales returns" and included on the monthly income accounts as "allowances and adjustments"		5 288.06
Total		10 236.98
Adjustments increasing the returned sales as shown in the account filed by Duplate Corp'n:		
Specialty returned sales for the five months ended May 31, 1930, included in the monthly income accounts but not included in the account filed by Duplate Corporation	1 942-8	2 361.85
Difference as above	1 942-8†	$7 875.11

†In red on Original Exhibit

The interest on investment for the year 1928 stated as $60,000 in the account filed by Duplate Corporation was calculated at a rate of six per cent on a paid-in capital of $1,000,000 for the year. According to the company's accounting records, the entire $1,000,000 of capital stock was not paid in until October 1928. We have recalculated the 1928 allowance for interest on investment and have included a monthly charge at the rate of six per cent per annum based on the total capital stock paid in at the end of the month. Interest on investment for the year 1928, as adjusted, amounts to $25,000 or $35,000 less than shown in the account filed by Duplate Corporation, detailed as follows:

Capital stock outstanding:	Capital stock outstanding	Adjusted interest on investment	Interest on investment per account filed	Adjustment
1928 Feb 28	$50 000.00	$250.00	$10 000.00	$9 750.00
Mar 31	50 000.00	250.00	5 000.00	4 750.00
Apr 30	100 000.00	500.00	5 000.00	4 500.00
May 31	100 000.00	500.00	5 000.00	4 500.00
Jun 30	200 000.00	1 000.00	5 000.00	4 000.00
Jul 31	300 000.00	1 500.00	5 000.00	3 500.00
Aug 31	500 000.00	2 500.00	5 000.00	2 500.00
Sep 30	700 000.00	3 500.00	5 000.00	1 500.00
Oct 31	1 000 000.00	5 000.00	5 000.00	-
Nov 30	1 000 000.00	5 000.00	5 000.00	-
Dec 31	1 000 000.00	5 000.00	5 000.00	-
Totals		$25 000.00	$60 000.00	$35 000.00

The following paragraphs explain the various statements and schedules which we prepared for each month:

Schedule of gross sales allowances and adjustments and net sales: During the period under review, the Pittsburgh Plate Glass Company sold the entire product of the Duplate Corporation prepared and issued all sales invoices covering shipments to customers,

issued all credit and debit memoranda and handled all credits and collections.

The warehouses of Pittsburgh Plate Glass Company were treated as jobbers and were billed at the same prices as jobbers. The books of the Duplate Corporation contain entries of credits to Pittsburgh Plate Glass Company at varying percentages which are stated on the Duplate Corporation's books to be commissions on sales, and also entries of credits to Pittsburgh Plate Glass Company for a portion of certain of Pittsburgh Plate Glass Company's general office salaries and expenses.

Each month, a recapitulation was prepared from Pittsburgh Plate Glass Company sales invoices covering all shipments of Duplate products, and the total quantities shipped classified as to quality and unit sales price. From this monthly recapitulation, one invoice was prepared by Duplate Corporation charging the Pittsburgh Plate Glass Company for the total monthly shipments, net of any cash discounts and commissions due the Pittsburgh Plate Glass Company.

We obtained the information necessary to prepare the schedules of gross sales, classified as to quantities, qualities and unit sales prices of shipments to various customers, from an analysis of copies of Pittsburgh Plate Glass Company sales invoices covering shipments of Duplate Corporation products.

The detail of the items included in the column captioned "allowances and adjustments" was prepared from the Duplate Corporation schedules of Pittsburgh Plate Glass Company credit memoranda, and verified by examination of the credit memoranda, giving effect, however to a few credits made by Pittsburgh Plate Glass Company to its customers not taken up by the Duplate Corporation. Where possible, we have applied the allowances and adjustments to the same month as the original billing.

Numerous minor differences exist between the figures in the column captioned "gross sales-Duplate Corporation to Pittsburgh Plate Glass Company" and those in the column captioned "gross sales-Pittsburgh Plate Glass Company to its customers". These are due to errors in classification on the Duplate Corporation's monthly sales recapitulation, discrepancies in billing for samples, etc. Likewise, for the same reasons there are small differences between the net sales as shown by the monthly income accounts and the total net sales as listed on the schedule. Below is a tabulation showing the differences each month:

	Sales net of allowances and adjustments but before returns			Differences as compared with income account	
		Per schedule of gross sales			
1928:	Per income account	Duplate billing	PPGCo. billing	Duplate billing Over-Short†	PPGCo. billing Over-Short†
Jan & Feb	$1 313.75	$1 341.04	$1 491.27	$27.29	$177.52
Mar	3 726.24	3 726.05	3 752.37	.19†	26.13
Apr	4 586.83	4 570.57	4 692.41	16.26†	105.58
May	9 122.25	9 099.80	9 103.54	22.45†	18.71†
Jun	9 805.50	9 718.04	9 982.28	87.46†	176.78
Jul	231 053.66	231 041.79	231 873.31	11.87†	819.65
Aug	418 363.47	418 363.59	419 404.29	.12	1 040.82
Sep	405 593.94	405 902.74	406 657.92	308.80	1 063.98
Oct	499 457.21	498 811.59	494 486.35	645.62†	4 970.86†
Nov	353 970.22	353 380.86	355 979.00	589.36†	2 008.78
Dec	150 795.48	151 242.83	151 086.10	447.35	290.62
	$2 087 788.55	$2 087 198.90	$2 088 508.84	$589.65†	$720.29
1929:					
Jan	571 436.75	571 477.22	571 995.48	40.47	558.73
Feb	426 294.51	426 369.40	425 196.56	74.89	1 097.95†
Mar	538 701.80	538 619.04	538 304.73	82.76†	397.07†
Apr	355 883.35	356 082.31	355 503.47	198.96	379.88†
May	269 897.09	269 904.21	269 534.18	7.12	362.91†
Jun	231 457.73	231 489.14	231 204.01	31.41	253.72†
Jul	296 751.17	296 750.60	296 649.31	.57†	101.86†
Aug	441 307.14	441 310.06	441 409.81	2.92	102.67
Sep	419 528.06	419 554.29	421 085.50	26.23	1 557.44
Oct	384 060.56	384 087.62	384 122.90	27.06	62.34
Nov	270 747.90	270 990.42	270 772.41	242.52	24.51
Dec	152 104.53	151 890.57	152 332.18	213.96†	227.65
	$4 358 170.59	$4 358 524.88	$4 358 110.54	$354.29	$60.35†

†In Red on Original Exhibit.

1930:	Sales net of allowances and adjustments but before returns			Differences as compared with income account	
		Per schedule of gross sales			
	Per income account	Duplate billing	PPGCo. billing	Duplate billing Over-Short†	PPGCo. billing Over-Short†
Jan	$340 287.06	$340 172.28	$340 016.58	$114.78†	$270.48†
Feb	247 326.39	246 973.18	247 156.64	353.21†	169.75†
Mar	235 976.72	236 654.83	236 361.52	678.11	384.80
Apr	177 198.15	177 425.92	178 339.99	227.77	1 141.84
May	205 039.83	205 132.18	205 080.49	92.35	40.66
	$1 205 828.15	$1 206 358.39	$1 206 955.22	$530.24	$1 127.07
Summary:					
1928	$2 087 788.55	$2 087 198.90	$2 088 508.84	4589.65†	$720.29
1929	4 358 170.59	4 358 524.88	4 358 110.54	354.29	60.05†
5 mos. 1930	1 205 828.15	1 206 358.39	1 206 955.22	530.24	1 127.07
Total	$7 651 787.29	$7 652 082.17	$7 653 574.60	$294.88	$1 787.11

The foregoing tabulation indicates that the gross sales before returns, as detailed on the monthly "schedules of gross sales, allowances and adjustments and net sales", in the aggregate varies but little from the aggregate gross sales as shown on the monthly income accounts.

In accordance with your instructions, we have calculated and shown on the detailed schedules the profit or loss on each sale.

Following the instructions of counsel for your company, the amount of the profit or loss on each sale as shown in the schedul represents the difference between:

(a) Gross billing to customer by Pittsburgh Plate Glass Company, less allowances and adjustments.

(b) Cost of shipment arrived at by multiplication of quantity shipped by average cost per foot for shipments during that month. In calculating this average cost per foot of sold product, certain

†In Red on Original Exhibit.

costs of unaccounted for and/or unsold product and certain items of general overhead expense have been eliminated which are explained in more detail hereinafter.

The average costs of shipments of Duplate arrived at as described above, are shown on the income account for each month and for your information are listed below:

	Average cost per foot of Duplate shipped:		
	1928	1929	1930
January)		$1.409	$1.318
February)	$5.04	1.581	1.356
March	2.875	1.615	1.312
April	3.168	1.643	1.379
May	3.166	1.653	1.324
June	1.879	1.505	-
July	1.325	1.47	-
August	1.294	1.382	-
September	1.346	1.364	-
October	1.389	1.332	-
November	1.371	1.432	-
December	1.378	1.63	-

The cost of goods sold based on the above averages per foot for each month, amounts in total to $5,902,357.22, as compared with a total of $5,903,924.48 on the income accounts (excluding contested items of expense). This comparatively negligible difference is caused by samples and other minor differences in the footage.

The profits on individual profit-making sales, as detailed on the monthly schedules, total $1,825,337.63. The losses as detailed on the monthly schedules, total $74,120.25, of which $29,182.20 represents miscellaneous credits to customers which could not be identified as applying to specific profit-making or loss-incurring sales, so that the losses on individual loss-incurring sales total $44,938.05.

Below is a reconciliation of the total of the profits, net of losses, with the aggregate loss for the period, per the monthly income accounts as detailed on page 2:

Total profits on individual profit-making sales		$1 825 337.63
Less, miscellaneous credits to customers which were not identified with profit-making or loss-incurring sales		29 182.20
		1 796 155.43
Less, losses on individual loss-incurring sales		44 938.05
Total profits on individual sales, net of losses and miscellaneous credits, as detailed on the monthly schedules		1 751 217.38
Deduct:		
Costs of unaccounted for and/or unsold product and certain expenses excluded in computing costs of individual shipments, in accordance with instructions of counsel	$1 912 487.41	
Returned sales	812 770.93	
Differences in sales	1 787.31	
Differences in costs	1 567.26	
		2 728 613.91
Loss† per income accounts as detailed on page 2.		977 395.53†

A reconciliation of the profit or loss for each month, before deducting returned sales, follows:

† In Red on Original Exhibit.

	Profits or losses† on gross sales per income account				
1928:	Before elimination of contested items of cost and expense:	Total of contested items of cost and expense eliminated:	After elimination of contested items of cost and expense:	Profits net of losses† as shown on schedule of sales:	Sales schedule over short†
Jan)					
Feb)	$5 752.25†	$4 417.54	$1 334.71†	$1 212.16†	$122.55
Mar	4 945.72†	4 326.32	619.40†	566.63†	52.77
Apr	4 217.06†	2 855.31	1 361.75†	1 233.65†	128.10
May	6 698.73†	3 303.42	3 395.31†	3 349.41†	45.90
Jun	3 151.17	1 717.65†	1 433.52	1 743.63	310.11
Jul	48 131.71†	120 477.49	72 345.78	73 138.79	793.01
Aug	50 321.89†	187 530.33	137 208.44	138 308.59	1 100.15
Sep	96 905.42†	216 375.16	119 469.74	120 639.06	1 169.32
Oct	27 767.32†	167 394.93	139 627.61	134 842.45	4 785.16†
Nov	49 071.97†	150 869.95	101 797.98	103 788.79	1 990.81
Dec	27 187.66†	70 573.24	43 384.58	43 730.42	345.84
	$317 848.56†	$926 405.04	$608 556.48	$609 829.88	$1 273.40
1929:					
Jan	33 740.10†	194 721.86	160 981.76	161 680.42	698.66
Feb	76 178.65†	161 684.46	85 505.81	84 565.00	940.81†
Mar	26 162.33†	124 673.52	98 511.19	98 503.53	7.66†
Apr	23 494.50	38 238.66	61 733.16	61 802.77	69.61
May	5 670.07	35 387.38	41 057.45	40 933.83	123.62†
Jun	30 232.94	23 853.76	54 086.70	54 059.04	27.66†
Jul	38 908.49	26 793.66	65 702.15	65 750.35	48.20
Aug	44 838.26	62 260.25	107 098.51	107 226.23	127.72
Sep	64 374.81	38 646.11	103 020.92	104 402.52	1 381.60
Oct	54 707.34	42 102.87	96 810.21	96 905.78	95.57
Nov	13 145.13	33 536.94	46 682.07	46 754.81	72.74
Dec	20 737.33†	31 471.80	10 734.47	11 440.91	706.44
	$118 553.13	$813 371.27	$931 924.40	$934 025.19	$2 100.79
1930:					
Jan	32 159.57	47 352.21	79 511.78	79 318.82	192.96†
Feb	10 680.23	33 760.90	44 381.13	44 110.72	270.41†
Mar	899.81	39 011.71	39 910.72	40 451.36	540.64
Apr	13 538.65†	26 873.93	13 335.28	13 625.71	290.43
May	4 530.87	25 712.35	30 243.02	29 855.70	387.32†
	$34 670.83	$172 711.10	$207 381.93	$207 362.31	$19.62†
Total	$164 624.60†	$1 912 487.41	$1 747 862.81	$1 751 217.38	$3 354.57

†In Red on Original Exhibit.

As far as was possible from the records available, we have supplied the names of the car manufacturer. In order to procure the information, we scrutinized the copies of sales invoices, credit memoranda and lists of car manufacturers' and body builders' pattern numbers furnished us by the Pittsburgh Plate Glass Company. Where we were unable to secure definite information, we have omitted the name of the car manufacturer.

Returned sales: The information contained in the schedules of returned sales was procured from the Duplate Corporation's list of Pittsburgh Plate Glass Company's credit memoranda. The substantial correctness of these lists was then verified by an examination of copies of the Pittsburgh Plate Glass Company's credit memoranda issued to its customers.

In preparing these schedules of returned sales, we have not attempted to allocate the returns to the months during which the shipments were billed to the customers; but, as per the books, in the month during which the returns were received. We have, however, applied all sizeable debit memoranda issued by the Pittsburgh Plate Glass Company to adjust credit memoranda previously issued, to the month in which the credit memoranda were issued.

We have calculated the cost of returned sales at the average cost per foot for the month in which the returns were received, as is shown on each monthly income account.

Following is a summary by months of the profit on profit-[illegible] sales after deducting credits which were not allocated to [illegible]cular sales and eliminating profit on returned sales:

	(A) Total profit on profit-making sales as shown on monthly schedules of sales	(B) Credits which were not allocated to particular sales included on monthly schedules of sales under column captioned "losses"	(C) Total credits to customers for returned sales, net of cost of returned sales, as shown on monthly income accounts	(D) Net profit on profit-making sales column A net of columns B and C
1928:				
Jan & Feb	-	-	-	-
Mar	$39.66	-	-	$39.66
Apr	84.21	-	-	84.21
May	61.93	-	-	61.93
Jun	1 744.11	-	-	1 744.11
Jul	73 138.79	-	-	73 138.79
Aug	138 675.35	$366.73	$54.83	138 253.79
Sep	121 167.76	528.70	4 919.77	115 719.29
Oct	135 756.80	914.35	30 040.19	104 802.26
Nov	104 600.02	651.21	7 979.93	95 968.88
Dec	47 699.30	3 968.88	15 292.80	28 437.62
	$622 967.93	$6 429.87	$ 58 287.52	$558 250.54
1929:				
Jan	165 829.60	4 126.23	12 445.65	149 256.72
Feb	85 050.12	420.43	9 712.69	74 917.00
Mar	99 282.55	519.07	10 222.49	88 540.99
Apr	63 152.66	717.84	11 272.00	51 162.82
May	48 236.23	6 513.32	12 520.76	29 202.15
Jun	56 977.53	1 229.29	7 321.76	48 426.48
Jul	70 242.12	728.74	12 665.58	56 847.80
Aug	110 169.03	1 171.14	5 542.55	103 455.34
Sep	106 028.40	160.27	4 611.45	101 256.65
Oct	101 483.84	1 741.16	10 273.60	89 469.08
Nov	50 541.78	974.48	7 950.35	41 616.95
Dec	15 238.65	850.18	5 141.27	9 247.20
	$972 231.51	$19 152.15	$109 680.18	$843 399.18
1930:				
Jan	83 662.85	663.83	2 870.36	80 128.66
Feb	49 911.79	510.28	6 001.40	43 400.11
Mar	42 863.75	344.80	1 678.91	40 840.04
Apr	20 414.93	852.11	2 175.54	17 387.28
May	33 284.87	1 229.16	796.19	31 259.52
	$230 138.19	$3 600.18	$13 522.40	[illegible] 3 015.61
Total	$1 825 337.63	32.20	$181 490.10	$1 [illegible] 4 665.43

Income accounts: As stated before, we have, wherever possible, applied sales allowances and adjustments to the same months in which the original sales were billed. Various items of expense, which were charged to single month's operations in the Duplate Corporation's accounting records, have been apportioned equitably over periods of several months and we have given effect to this apportionment in the monthly income accounts, as adjusted.

Various expenses, such as experimental expense, Triplex case expense, patent expense, commissions paid to Pittsburgh Plate Glass Company, and extraordinary expenses have, at the request of your legal counsel, been eliminated and therefore not distributed over the several classes of product as representing part of the cost of sales thereof.

The costs of gross sales of "Duplate" as shown on the monthly income accounts, before the elimination of contested items, are in agreement with the monthly costs of sales as shown by the Duplate Corporation's accounting records.

We were informed that the costs of bullet-proof, sheet and other specialty products were ascertained by the company in some instances by arbitrary apportionment. Because of the relatively small quantities involved, the costs of these specialties have been included in the statements we prepared at the amounts shown by the Duplate Corporation's records.

In the monthly income accounts for the five months of 1930, we have shown no classification of specialty sales and costs of sales, other than "sheet", because of the small quantities involved and also because we were informed that practically all specialties were manufactured during that period under a new process.

Cost of Duplate sales: The items of material, labor and ...se as shown on the "monthly costs of Duplate sales" are in agree... ...with the Duplate Corporation's accounting records.

The monthly adjustments to the company's cost of Duplate sales, ...senting items of costs of unaccounted for and/or unsold product, ...ted by your legal counsel, are completely explained in the "Detail ...ntested Items Eliminated from Cost of Duplate Sales".

Detail of contested items, eliminated from cost of Duplate Sales: ...items included in these schedules are a result of eliminating from ...Duplate inventory accounts, losses at each stage of manufacture during ...month at a rate per foot conforming to the average cost of manufac... ...per foot as shown by that particular process during the month. ...consistent, we have valued reclaimed or salvaged glass at the same ...ge cost of manufacture per foot as was used for the transfer of ...lar glass from the preceding stage of manufacture during the month.

From the information contained in the company's monthly ...tracts of Stock and Departmental Accounts", we have completely re... ...ulated the Duplate stock, work-in-process, and finished goods in... ...tories, and the details of changes made by reason of such recalcula... ...are shown on our statements captioned "Detail of Contested Items ...inated from Cost of Duplate Sales".

Detail of various expenses, such as experimental expenses, ...lm case expenses, miscellaneous patent expenses, etc.: These month... ...chedules were prepared from copies of the Duplate Corporation's ...hly reports and the totals as shown on these schedules are in agree... ...with the items of expense as stated on the monthly income accounts.

Inventories: Following is a summary of the inventories of the Duplate Corporation at May 31, 1930, as shown by its records and as adjusted. We made no verification of the inventories. The adjustment results solely from the changes in the unit values due to the elimination of certain costs of unaccounted for and/or unsold product:

	Number feet	Per books	As adjusted
Material and supplies:			
Plate glass stock:			
7/64 inch	18 562	$6 552.39	$6 552.44
Other thicknesses	2 271	2 369.29	2 369.29
Window glass stock (sheet)	74 162	6 846.83	6 846.83
Picture glass stock	4 400	677.68	677.68
Photo glass stock	21 086	3 778.90	3 778.90
Pyralin (lbs)	82 227	82 605.65	82 605.65
Hot wire cutting department		2 366.83	2 366.83
Sand blast, trade-marking dept.		265.20	265.20
Scrap account		1 613.67	1 613.67
Storeroom stock		20 295.01	20 295.01
Total material and supplies		$127 371.45	$127 371.51
Glass in process:			
Pressing department	31 662	34 422.07	33 005.97
Cutting department	595	226.80	220.11
Miscellaneous		140.00	140.00
Total glass in process		$34 788.87	$33 365.70
Finished stock:			
Duplate	9 277	11 585.67	10 666.91
Bent Duplate	-	1 546.45	1 546.45
Decorative Duplate	105	343.47	343.47
Window glass (sheet)	3 621	2 492.70	2 492.70
Decorative window glass (sheet)	48	57.00	57.00
Goggle stock	1 895	492.15	492.15
Combination	1 721	1 316.39	1 316.39
Aerolite (photo and picture)	28	31.15	31.15
Samples (finished stock)	-	2 196.46	2 196.46
Counter tops	-	17.65	17.65
Total finished stock		$20 079.09	$19 160.31
Total inventories		$182 239.41	$179 897.52

We wish to take this opportunity of expressing our appreciation of the courtesies and assistance given our representatives by the officers and employees of the Duplate Corporation, the Pittsburgh Plate Glass Company, and the Triplex Safety Glass Company of North America.

Very truly yours,

Lyford Ross Bros & Montgomery

Copy No. 1

Year		Plate Glass Stock Losses		Plate Glass Cutting Dept. Losses		Assembling Dept. Losses
1928	January & February	-		-		-
	March	-		-		10-2-10
	April	-		-		136
	May	30	(1)†	-		172-11
	June	468	(1)†	-		526-3
	July	984	(1)†	-		2 785
	August	-		-		8 197
	September	92 038	(2)†	-		486-9
	October	14 567	(4)†	23 801		670-4
	November	12 744	(4)†	12 268		1 145-9
	December	118 222)	(4)†			
		5 136)	(3)†	5 926		
	Total	244 189		41 995		14 130-3
1929	January	61 341	(5)†	957	(4)†	-
	February	46 145	(5)†	317		-
	March	31 125	(5)†	31 780	(8)†	-
	April	18 150	(5)†	10 175		-
	May	5 861	(6)†	8 516		-
	June	1 928	(6)†	5 831		-
	July	-		15 319		3 547
	August	13 252	(6)†	14 053		
	September	482	(7)†	12 163		1 431
	October	450	(7)†	15 537		1 364
	November	310	(7)†	8 744		757
	December	357	(7)†	6 714		1 270
	Total	179 401		130 106		8 369
1930	January	1 034		27 970		994
	February	350		15 827		738
	March	175		15 741		-
	April	34		10 293		-
	May	35		6 074		-
	Total	1 628		75 905		1 732
	Grand Total	425 218		248 006		24 231-3

† Figures in Parenthesis in red in Original Exhibit.

Year		Assembling and Pressing Dept. Losses	Pressing Dept. Losses
1928	Jan. & Feb.	-	187
	March	-	220-4
	April	-	347-6
	May	-	2 377-2
	June	-	9 363-2
	July	-	53 681-3
	August	-	94 049-11
	September	-	113 904-7
	October	-	99 529-11
	November	-	51 124-4
	December	-	32 572
	Total	-	457 357-2
1929	January	-	90 752
	February	-	92 370
	March	-	35 526
	April	-	4 086
	May	-	2 999
	June	-	6 956
	July	-	2 619
	August	-	9 559
	September	-	4 827
	October	-	6 427
	November	-	3 917
	December	-	2 820
	Total	-	262 858
1930	January	-	6 069
	February	-	4 501
	March	6 074	-
	April	3 357	-
	May	3 637	-
	Total	13 068	10 570
	Grand Total	13 068	730 785-2

On company statements these items are

(1)†Breakage
(2)†Order cutting and stock loss
(3)†Operating stock loss
(4)†Stock loss
(5)
(6)
(7)
(8)

PLAINTIFF'S EXHIBIT NO. 10.

DUPLATE CORPORATION

RECAPITULATION or CONTESTED ITEMS ELIMINATED from COST of DUPLATE SALES (quantity stated in feet and inches)

	Assembling and Pressing Dept. Losses	Pressing Dept. Losses	Carbital Dept. Losses	Pyralin Examination Dept. Losses	Edging Dept. Losses	Duplate Stock Losses	Salvaged or reclaimed stock retaken into possession	Total Area
Feb.	-	187	-	-	-	-	-	187
	-	220-4	-	-	53-10	-	-	284-5
	-	347-6	-	-	168-1	-	113-1	764-8
	-	2 377-2	-	-	614-8	-	365-7	3 560-4
	-	9 363-2	-	-	1 792-2	-	292-1	12 441-8
	-	53 681-3	-	-	20 394-10	21 527-9	353-8	99 726-6
	-	94 049-11	-	-	38 987-3	-	690-3	141 924-5
ber	-	113 904-7	-	-	24 828-5	-	5 860-8	237 118-5
r	-	99 529-11	-	-	26 136-8	-	9 095-7	173 800-6
er	-	51 124-4	-	-	9 177-6	742-9	5 973-8	93 176
er	-	32 572	-	-	4 663	133	8 405	175 057
Total	-	457 357-2	-	-	126 816-5	22 403-6	31 149-7	938 040-11
y	-	90 752	-	-	9 909 (5)†	3 326) (9)†	-	-
						1 149) (10)†	11 764	179 198
ry	-	92 370	-	-	15 535	641-6 (10)†	16 211	171 219-6
	-	35 526	-	-	19 018	-	32 857	150 306
	-	4 086	-	-	5 510	352 (10)†	18 027	56 300
	-	2 999	-	20 878 (13)†	3 634	-	19 637	61 525
	-	6 956	-	7 429 (13)†	6 706	1 343 (10)†	17 875	48 068
	-	2 619	-	22 808 (13)†	3 693	2 000 (10)†	13 022	63 008
	-	9 559	-	44 260 (16)†	7 205	17 177 (10)†	17 091	122 597
ber	-	4 827	1 131	53 986 (14)†	1 740	405 (10)†	19 508	95 673
r	-	6 427	520	7 292 (14)†	3 812	576 (10)†	15 312	51 290
er	-	3 917	259	4 056 (14)†	1 049	3 450 (10)†	6 198	28 740
er	-	2 820	-	3 095 (15)†	660	1 585) (11)†	-	-
						7 857) (12)†	5 587	29 945
Total	-	262 858	1 910	163 804	78 471	39 861-6	193 089	1 057 869-6
r	-	6 069		14 140	2 163	286	13 610	66 266
y	-	4 501		7 042	2 107	4	4 598	35 167
	6 074	-		9 005	2 243	57	3 945	37 240
	3 357	-		5 061	1 538	48	4 198	24 529
	3 637	-		3 990	851	683	5 300	20 570
Total	13 068	10 570	-	39 238	8 902	1 078	31 651	183 772
l Total	13 068	730 785-2	1 910	203 042	214 189-5	63 343	255 889-7	2 179 682-5

ny statements these items are variously named as follows:

age
r cutting and stock loss
ting stock loss
k loss

(5)†Plate glass shrinkage
(6)†Cutting dept. shrinkage
(7)†Loss in stock
(8)†Stock and cutting loss
(9)†Rejections unedged stock
(10)†Rejections edged stock
(11)†Stock loss edged
(12)†Loss in stock edged
(13)†Cutting
(14)†Loss examining
(15)†Loss examining and scrap sales
(16)†Shrinkage

DUPLATE CORPORATION

RECAPITULATION of CONTESTED ITEMS ELIMINATED from COST of DUPLATE SALES (stated in dollars)

RECAPIT

		Plate glass stock losses	Plate glass cutting department losses	Assembling department losses	Assembling & pressing department losses	Pressing department losses	Cerbital department losses	Pyralin examination department losses	Edging department losses
1928	January & February	-	-	-	-	$384.45	-	-	-
	March	-	-	$11.89	-	389.63	-	-	$113.28
	April	-	-	176.44	-	623.94	-	-	347.51
	May	$10.58 (1)†	-	252.41	-	4 584.83	-	-	1 514.98
	June	155.10 (1)†	-	534.56	-	11 130.92	-	-	2 559.92
	July	369.36 (1)†	-	2 925.36	-	60 530.44	-	-	25 271.85
	August	-	-	8 767.51	-	107 421.09	-	-	48 279.47
	September	39 527.38 (2)†	-	538.68	-	135 036.18	-	-	29 311.44
	October	6 483.48 (4)†	$10 593.35	793.07	-	121 873.39	-	-	31 913.14
	November	5 697.29 (4)†	5 494.96	1 288.74	-	59 763.32	-	-	10 777.05
	December	2 178.69) (3)†							
		50 149.77) (4)†	2 513.81	-	-	35 654.55	-	-	5 132.42
	Total	$104 571.65	$18 602.12	$15 288.66	-	$537 392.74	-	-	$155 221.06
1929	January	25 672.44 (5)†	400.52 (4)†	-	-	114 627.94	-	-	12 426.23 (5
	February	19 613.93 (5)†	134.74	-	-	128 078.12	-	-	21 374.14
	March	13 246.18 (5)†	13 524.93 (8)†	-	-	51 418.84	-	-	27 400.94
	April	7 508.26 (5)†	4 209.18	-	-	5 490.60	-	-	7 472.94
	May	2 474.14 (6)†	3 674.44	-	-	4 078.34	-	$4 999.45 (13)†	4 939.19
	June	807.82 (6)†	2 507.50	-	-	9 166.06	-	1 826.00 (13)†	8 880.21
	July	-	6 145.39	3 807.91	-	3 143.01	-	4 627.51 (13)†	4 425.14
	August	5 185.77 (6)†	5 630.89	-	-	10 937.36	-	9 264.62 (16)†	8 256.21
	September	188.08 (7)†	4 892.05	1 517.59	-	5 639.82	$1 357.95	10 555.50 (14)†	2 196.25
	October	165.43 (7)†	5 874.85	1 373.38	-	7 086.69	591.92	7 432.93 (14)†	4 517.84
	November	112.84 (7)†	3 318.41	793.81	-	4 586.06	303.24	4 228.63 (14)†	1 339.53
	December	135.09 (7)†	2 668.05	1 439.47	-	3 590.83	-	3 315.46 (15)†	952.81
	Total	$75 109.98	$52 980.95	$8 932.16	-	$347 843.67	$2 253.11	$46 250.10	$104 181.43
1930	January	354.36	9 859.70	957.25	-	6 611.82	-	15 011.26	2 542.26
	February	121.95	5 663.85	711.08	-	4 893.41	-	7 121.42	2 505.96
	March	61.06	5 641.51	-	$6 423.26	-	-	9 359.62	2 609.53
	April	11.92	3 772.69	-	3 601.52	-	-	5 326.70	1 818.34
	May	12.36	2 247.11	-	3 791.34	-	-	4 320.37	972.65
	Total	$561.65	$27 184.86	$1 668.33	$13 816.12	$11 505.23	-	$41 139.37	$10 448.74
	Grand Total	$180 243.28	$98 767.93	$25 889.15	$13 816.12	$896 741.64	$2 253.11	$87 389.47	$269 851.23

On company's statements, these items are variously classified as follows:

(1)† Breakage
(2)† Order cutting and stock loss
(3)† Operating stock loss
(4)† Stock loss

(15)† Plate glass shrinkage
(6)† Cutting department shrinkage

(7)† Loss in st
(8)† Stock and
(9)† Rejectio

† Figures in Parenthesis in Red in Original Exhibit.

ars)

DUPLATE CORPORATION

RECAPITULATION of CONTESTED ITEMS ELIMINATED from COST of DUPLATE SALES (stated in dollars)

Carbital department losses	Pyralin examination department losses	Edging department losses	Edgework operations losses	Finished Duplate stock losses	Salvaged or reclaimed stock; value per company included in costs	Adjustment resulting from revaluation of opening and closing inventories based on adjusted costs	Company's estimated cost of rejects charged to process costs and later deducted (see contra)	Total Deductions
-	-	-	-	-	-	-	-	$384.45
-	-	$113.28	-	-	-	-	-	514.80
-	-	347.51	-	-	-	$169.72	-	1 317.61
-	-	1 514.98	-	-	-	-	-	6 362.80
-	-	2 559.92	-	-	-	-	-	14 380.50
-	-	25 271.85	-	$27 394.28	-	-	-	116 491.29
-	-	48 279.47	-	-	-	311.38	-	164 779.45
-	-	29 311.44	$263.50	-	$9 221.17	-	-	213 898.35
-	-	31 913.14	147.77	-	15 846.33	-	-	187 650.53
-	-	10 777.05	115.48	879.65	10 766.92	44 038.53	-	138 821.94
-	-	5 132.42	106.51	149.22	13 567.35	-	-	109 452.32
-	-	$155 221.06	$633.26	$28 423.15	$49 401.77	$44 519.63	-	$954 054.04
-	-	12 426.23 (5)†	4.86	4 232.93) (9)† 1 401.83) (10)†	8 053.06	22 234.12	-	189 053.93
-	-	21 374.14	44.79	867.42 (10)†	8 749.64	-	-	178 862.78
-	-	27 400.94	42.16	-	13 329.94	31 956.71	-	150 919.70
-	-	7 472.94	10.66	481.86 (10)†	8 252.34	11 183.79	$60 334.61	104 944.24
-	$4 999.45 (13)†	4 939.19	4.35	3 217.99 (10)†	6 032.38	24 630.03	-	54 050.31
-	1 826.00 (13)†	8 880.21	-	97.97) (10)† 1 789.08) (10)†	5 235.96	5 280.65	-	35 591.25
-	4 627.51 (13)†	4 425.14	-	150.61) (10)† 2 385.37) (10)†	6 671.70	-	-	31 356.64
-	9 264.62 (16)†	8 256.21	-	1 341.40† (10)† 19 768.79) (10)†	10 507.46	-	-	70 892.50
357.95	10 555.50 (14)†	2 196.25	-	501.53 (10)†	15 526.02	2 389.01	-	44 763.80
591.92	7 432.93 (14)†	4 517.84	-	688.78 (10)†	10 923.35	-	-	38 655.17
303.24	4 228.63 (14)†	1 339.53	-	4 307.05 (10)†	7 930.22	1 134.49	-	28 054.28
-	3 315.46 (15)†	952.81	-	2 155.84) (11)† 10 686.70) (12)†	2 914.95	1 308.11	-	29 167.31
253.11	$46 [illegible].10	$104 181.43	$106.82	$54 075.15	$104 127.02	$100 116.91	$60 334.61	$956 311.91
-	15 011.26	2 542.26	-	340.16	3 134.42	-	-	38 811.23
-	7 121.42	2 505.96	-	4.76	2 124.95	61.56	-	23 208.94
-	9 359.62	2 609.53	-	66.59	1 909.41	-	-	26 070.98
-	5 326.70	1 818.34	-	56.54	1 186.73	1 052.38	-	16 826.82
-	4 320.37	972.65	-	785.33	351.53	5 685.17	-	18 165.86
-	$41 339.37	$10 448.74	-	$1 253.38	$8 707.04	$6 799.11	-	$123 083.83
253.11	$87 389.47	$269 851.23	$740.08	$83 751.68	$162 235.83	$151 435.65	$60 334.61	$2 033 449.78

[illegible]hrinkage
[illegible]rtment shrinkage

(7)† Loss in stock
(8)† Stock and cutting loss
(9)† Rejections unedged stock
(10)† Rejections edged stock
(11)† Stock loss edged
(12)† Loss in stock edged
(13)† Cutting
(14)† Loss examining
(15)† Loss examining and scrap sales
(16) Shrinkage

PLAINTIFF'S EXHIBIT NO. 11.

DIRECTORS
Eugene V. R. Thayer
Charles M. Schwab
Hicks A. Weatherbee
Willard A. Mitchell
Charles Reed
Fredrick C. Moskovics
Edgar B. Correll

STUTZ MOTOR CAR COMPANY
of AMERICA, *Inc.*

INDIANAPOLIS, IND., U.S.A.

CABLE ADDRESS, "STUTZ"

Saturday
December
Eight
1928

12-16-1925.

Col. E. S. Correll.
Letter December eighth
receiving careful attention
will advise you fully but can
assure you no rebates
Confident that being paid anyone else
accept with pleasure invitation
for nineteen 26

Mr. Neilson Edwards
Chase Securities Corporation
Chase National Bank Building
60 Cedar Street
New York City, N. Y.

My dear Edwards:

I am enclosing you a copy of Calhoun's letter of November 13th. I am writing to you because I believe something is wrong. Naturally, we want to use Triplex glass if we can because we would like to do business if it is possible to do so. On the other hand I am going to tell you in confidence your prices are out of line with competition.

7 cars 1000 similar
46 styles 14,000 pieces.

3.14 1.71 Sealed
1.15 1.45 m.
1.85 1.55 sealed
500 pieces at time

Samples Cadillac

This letter that Calhoun gives me makes the prices entirely too high and I am writing to you with the request that the matter be gotten into and straightened out. Confidentially, without using what buying ability we have we are already in a position to buy the same safety glass that Cadillac and LaSalle use, of the highest plate glass standard for $2.10 per square foot net or less and the Utility Quality that they put out to other manufacturers as the laminated sheet we can buy for $1.35. Mind you, we have not yet started in with these people to see, really, where their bottom price is. The attached copy of the figures contained in Calhoun's letter makes it highly non competitive from the point of view of this glass.

unsealed.
30% Celluloid up.

Furthermore, we can get a guarantee from them that is better than the guarantee that you gentlemen tell me you are going to give me. Namely, we can get a guarantee to protect us from discoloration in the glass.

Cy. 11

The above are all facts. How much lower we could go I have not yet attempted to find out but certainly we cannot afford to pay Triplex $3.14 per square foot for the plate glass quality when we can buy the same thing that Cadillac and LaSalle are using for a maximum of $2.10 and probably less and we cannot afford to pay Triplex $1.71 for Utility Quality when we can buy the same thing elsewhere for a maximum of $1.35 or less.

Naturally, we are very much disappointed in the prices contained in the attached copy of Calhoun's letter. Something is wrong. Triplex must be competitive in price. May I hear from you definitely and specifically as to exactly what price we are going to be asked to pay because naturally we cannot continue to pay the above prices and we want to know just exactly what we are going to be charged.

As a matter of gossip one of our vendors from whom we buy an article with glass therein tells us that he is installing Triplex glass for the Pierce Arrow factory in a similar article. He says that originally the Triplex price was $2.00 a foot and that later the price was raised to $2.50 a foot; his belief being that the 50¢ differential is being rebated to Pierce Arrow factory by Triplex. What I would like to know is Pierce Arrow getting a rebate? Also if you will notice the prices this man tells us that they are paying, they are less than the price quoted to us. Will you kindly get into this for us?

Your kindness in giving this your attention will be very much appreciated indeed. Thanks a thousand times.

Yours very truly,

E. S. Correll
Vice President

ESC RLM

1210

COPY

TRIPLEX SAFETY GLASS CO.

Ex. 11

Clifton, N.J.
Nov. 13, 1928

Stutz Motor Car Co. of America, Inc.
Indianapolis, Indiana

ATTENTION COL. E.S. GORRELL

Dear Colonel Gorrell:

During our conversation of November 8th in your office regarding Triplex, I promised to send you a resume of the Underwriters' Report on Triplex Glass. This you will find enclosed.

I also stated that I would check into the prices given to Mr. Koskovics over the telephone by Mr. Edwards. After discussing this with Mr. Edwards, it seems that there must be some misunderstanding in the telephone transmission of these prices, as the prices Mr. Edwards had in mind were the prices that he had given me in the pencil memorandum which I had with me during my visit with you in Indianapolis. This price was $3.14 per sq. ft. net for Triplex Standard Quality (plate) sealed, and $1.71 per sq. ft. net for Triplex Utility Quality (sheet) sealed.

If we were to furnish Triplex Glass without the seal, a deduction from the above prices of 35¢ per sq. ft. would be effected. Of course, the grinding and polishing on both Triplex Standard and Utility Qualities is 1/2¢ per linear inch for straight edges and 1¢ per linear inch for curved edges.

Since our discussion, I thought that possibly you would be interested in having a complete price breakdown on the prices mentioned above by models, showing complete equipment of Triplex Standard Quality, complete equipment of Triplex Utility Quality, and complete equipment of Triplex Utility Quality except the windshield which would be made of Triplex Standard quality. We have also included the Protex figure for the equipment alone, to which must be added 1-1/2¢ per sq. ft. for boxing, which, I understand, you were paying the Mississippi Glass Company.

I am also supplying Mr. Edwards with copies of these prices, and I trust that they are self explanatory. However, if there should be any further question on this subject, we would be most pleased to hear from you.

Yours very truly,

(Signed) - T. A. Calhoun

Manager - Sales Department

1211

964

[fol. 1212] **PLAINTIFF'S EXHIBIT NO. 12**

December 11, 1928.

Colonel E. S. Gorrell, Vice President, Stutz Motor Car Co. of America, Inc., Indianapolis, Ind.

MY DEAR COLONEL GORRELL:

In answer your favor of December 8th, I wish to confirm the statement in my telegram sent to you yesterday that we are not paying rebates in any form to any uswers of Triplex. We understand that this practice was followed by plate glass manufacturers, but we have never done so, as we think that is is a bad practice. Pierce-Arrow has not been getting any rebates from us and neither has anybody else.

Regarding the question of price, our figure to you was based on the fact that from our factory point of view we would not have quantity production. The prices you have in mind are evidently those quoted by people who are figuring on quantity business, and we are familiar with this situation. On Triplex Utility Quality we are perfectly willing to make the base price to you unsealed $1.45 per square foot, and $1.55 per square foot sealed, provided we get orders so that we can run through the factory a minimum of 500 pieces of one size and shape at a time.

We strongly advise the use of the seal as we believe that any laminated glass made without a seal may develop defects in the future. Unsealed laminated glass has not been in use long enough to satisfy us that there is no danger. Some of our small competitors, who have been selling unsealed laminated glass for years, and who have been having trouble, are now sealing their products and we know that the manufacturers of Duplate are giving the question of sealing serious consideration, all of which substantiates our opinion that a seal is necessary.

It is obvious that the exposed edge of the celluloid will deteriorate faster than the sealed edges and as celluloid will absorb moisture, it is likely to ultimately effect the lami-
[fol. 1213] nation. Trouble of this character creates a problem for you that tends to impair the owner's goodwill. In the edges of lights that go into frames, as I told you

during my last visit, it is probably alright not to seal, provided the installation is made as we advise. Ford windshields are not sealed, but they are completely surrounded by a frame.

On the tailor-made jobs where only a few lights of a size are required, our price on Utility will be $1.71 per square foot sealed, and $1.61 unsealed, the justice of which you can readily appreciate. Of the 14,000 lights we have on order there are 46 sizes, and only 7 pieces out of the 46 sizes can be made on a production basis.

On Standard Quality plate glass Triplex, following the same idea, our prices per square foot to you will be $2.25 unsealed, $2.55 sealed, on quantity orders, and $3.14 sealed and $2.84 unsealed on tailor-made jobs. The reason for the larger differential is that the breakage that takes place in sealing causes a heavier loss on the higher priced product.

Since quoting you last, the price of celluloid has advanced 30% and as our quotation was based on the costs of materials, we know you will appreciate the fact that we are doing everything we can to co-operate by absorbing this in our prices, which is only possible because we are continuing to improve our efficiency and reduce our costs. We hope to make considerable further progress along these lines as we continue to do business with you. Only recently we were successful in greatly improving upon our method of sealing.

You can rest assurred that I am going to see that the Stutz Company gets a square deal, and I am writing you this letter now to cover the matter temporarily, as I will discuss it with you fully next week when I am in Indianapolis.

Very truly yours, Neilson Edwards, Vice-President.

(Here follows 1 photo, side folio 1214.)

PLAINTIFF'S EXHIBIT NO. 13.

...e would believe them to be supernat-...ural."

Chrysler Adopts Triplex Glass

NO WIRE USED IN IT; WILL NOT THROW SPLINTERS UPON IMPACT

An innovation emphasizing the safety element of modern motoring is seen in the announcement today that the Chrysler Sales Corporation is now prepared to offer Triplex Glass as optional equipment in all models. This marks the first adoption of a clear-vision glass, designed to eliminate danger of cuts in case of accident, by any American automobile manufacturer.

In a booklet prepared for Chrysler dealer, six reasons for this step are cited. It is explained that Triplex Glass, being built of two layers of selected plate glass with a binding middle layer of pyroxalin plastic, is flexible under impact, and therefore does not throw splinters. That it softens the sun's direct rays, breaks headlight glare, and eliminates condensation in closed cars during winter driving, are other reasons. It is further stated that it can not be cut with a diamond and thereby renders closed cars less susceptible to theft.

Triplex is indistinguisable to the eye from ordinary types of plate glass, having no wires in its construction. The installation in Chrysler models will be made at a slight extra charge. Manufacture of this glass in this country by an American company started last year, although it has been widely used in Europe for fourteen years.

From the Adams City Post and many other papers

THE TRIPLEX SAFETY GLASS CO.
of North America, Inc.
Hoboken Terminal, Hoboken, N. J.

PLAINTIFF'S EXHIBIT NO. 11.

DIRECTORS
Eugene V. R. Thayer
Charles M. Schwab
Hicks A. Weatherbee
Willard A. Mitchell
Charles Reed
Fredrick C. Moskovics
Edgar S. Gorrell

STUTZ MOTOR CAR COMPANY
of AMERICA, *Inc.*

INDIANAPOLIS, IND., U.S.A.

CABLE ADDRESS, "STUTZ"

Saturday
December
Eight
1928

12-10-1928

Col. E. S. Gorrell.
Letter December eighth
receiving careful attention
will advise you fully but can
assure you assume no rebates
Confidential being paid anyone &
accept with pleasure invitation
for nineteen

Mr. Neilson Edwards
Chase Securities Corporation
Chase National Bank Building
60 Cedar Street
New York City, N. Y.

My dear Edwards:

I am enclosing you a copy of Calhoun's letter of November 13th. I am writing to you because I believe something is wrong. Naturally, we want to use Triplex glass if we can because we would like to do business if it is possible to do so. On the other hand I am going to tell you in confidence your prices are out of line with competition.

7 on 1000 similar
6 sizes 1,000 pieces.
3.14 1.71 Sealed
1.15 1.46 m.
1.85 1.55 sealed
500 pieces at time

This letter that Calhoun gives me makes the prices entirely too high and I am writing to you with the request that the matter be gotten into and straightened out. Confidentially, without using what buying ability we have we are already in a position to buy the same safety glass that Cadillac and LaSalle use, of the highest plate glass standard for $2.10 per square foot net or less and the Utility Quality that they put out to other manufacturers as the laminated sheet we can buy for $1.35. Mind you, we have not yet started in with these people to see, really, where their bottom price is. The attached copy of the figures contained in Calhoun's letter makes it highly non competitive from the point of view of this glass.

Samples Cadillac

Furthermore, we can get a guarantee from them that is better than the guarantee that you gentlemen tell me you are going to give me. Namely, we can get a guarantee to protect us from discoloration in the glass.

Cy. 11

The above are all facts. How much lower we could go I have not yet attempted to find out but certainly we cannot afford to pay Triplex $3.14 per square foot for the plate glass quality when we can buy the same thing that Cadillac and LaSalle are using for a maximum of $2.10 and probably less and we cannot afford to pay Triplex $1.71 for Utility Quality when we can buy the same thing elsewhere for a maximum of $1.35 or less.

Naturally, we are very much disappointed in the prices contained in the attached copy of Calhoun's letter. Something is wrong. Triplex must be competitive in price. May I hear from you definitely and specifically as to exactly what price we are going to be asked to pay because naturally we cannot continue to pay the above prices and we want to know just exactly what we are going to be charged.

As a matter of gossip one of our vendors from whom we buy an article with glass therein tells us that he is installing Triplex glass for the Pierce Arrow factory in a similar article. He says that originally the Triplex price was $2.00 a foot and that later the price was raised to $2.50 a foot; his belief being that the 50¢ differential is being rebated to Pierce Arrow factory by Triplex. What I would like to know is Pierce Arrow getting a rebate? Also if you will notice the prices this man tells us that they are paying, they are less than the price quoted to us. Will you kindly get into this for us?

Your kindness in giving this your attention will be very much appreciated indeed. Thanks a thousand times.

Yours very truly,

E. S. Correll
Vice President

ESC RLM

1210

Ex. 11

COPY

TRIPLEX SAFETY GLASS CO.

Clifton, N.J.
Nov. 13, 1928

Stutz Motor Car Co. of America, Inc.
Indianapolis, Indiana

ATTENTION COL. E.S. GORRELL

Dear Colonel Gorrell:

During our conversation of November 8th in your office regarding Triplex, I promised to send you a resume of the Underwriters' Report on Triplex Glass. This you will find enclosed.

I also stated that I would check into the prices given to Mr. Koskovics over the telephone by Mr. Edwards. After discussing this with Mr. Edwards, it seems that there must be some misunderstanding in the telephone transmission of these prices, as the prices Mr. Edwards had in mind were the prices that he had given me in the pencil memorandum which I had with me during my visit with you in Indianapolis. This price was $3.14 per sq. ft. net for Triplex Standard Quality (plate) sealed, and $1.71 per sq. ft. net for Triplex Utility Quality (sheet) sealed.

If we were to furnish Triplex Glass without the seal, a deduction from the above prices of 35¢ per sq. ft. would be effected. Of course, the grinding and polishing on both Triplex Standard and Utility Qualities is 1/2¢ per linear inch for straight edges and 1¢ per linear inch for curved edges.

Since our discussion, I thought that possibly you would be interested in having a complete price breakdown on the prices mentioned above by models, showing complete equipment of Triplex Standard Quality, complete equipment of Triplex Utility Quality, and complete equipment of Triplex Utility Quality except the windshield which would be made of Triplex Standard quality. We have also included the Protex figure for the equipment alone, to which must be added 1-1/2¢ per sq. ft. for boxing, which, I understand, you were paying the Mississippi Glass Company.

I am also supplying Mr. Edwards with copies of these prices, and I trust that they are self explanatory. However, if there should be any further question on this subject, we would be most pleased to hear from you.

Yours very truly,

(Signed) - T. A. Calhoun

Manager - Sales Department

1211

964

[fol. 1212] **PLAINTIFF'S EXHIBIT NO. 12**

December 11, 1928.

Colonel E. S. Gorrell, Vice President, Stutz Motor Car Co. of America, Inc., Indianapolis, Ind.

My Dear Colonel Gorrell:

In answer your favor of December 8th, I wish to confirm the statement in my telegram sent to you yesterday that we are not paying rebates in any form to any uswers of Triplex. We understand that this practice was followed by plate glass manufacturers, but we have never done so, as we think that is is a bad practice. Pierce-Arrow has not been getting any rebates from us and neither has anybody else.

Regarding the question of price, our figure to you was based on the fact that from our factory point of view we would not have quantity production. The prices you have in mind are evidently those quoted by people who are figuring on quantity business, and we are familiar with this situation. On Triplex Utility Quality we are perfectly willing to make the base price to you unsealed $1.45 per square foot, and $1.55 per square foot sealed, provided we get orders so that we can run through the factory a minimum of 500 pieces of one size and shape at a time.

We strongly advise the use of the seal as we believe that any laminated glass made without a seal may develop defects in the future. Unsealed laminated glass has not been in use long enough to satisfy us that there is no danger. Some of our small competitors, who have been selling unsealed laminated glass for years, and who have been having trouble, are now sealing their products and we know that the manufacturers of Duplate are giving the question of sealing serious consideration, all of which substantiates our opinion that a seal is necessary.

It is obvious that the exposed edge of the celluloid will deteriorate faster than the sealed edges and as celluloid will absorb moisture, it is likely to ultimately effect the lami-
[fol. 1213] nation. Trouble of this character creates a problem for you that tends to impair the owner's goodwill. In the edges of lights that go into frames, as I told you

during my last visit, it is probably alright not to seal, provided the installation is made as we advise. Ford windshields are not sealed, but they are completely surrounded by a frame.

On the tailor-made jobs where only a few lights of a size are required, our price on Utility will be $1.71 per square foot sealed, and $1.61 unsealed, the justice of which you can readily appreciate. Of the 14,000 lights we have on order there are 46 sizes, and only 7 pieces out of the 46 sizes can be made on a production basis.

On Standard Quality plate glass Triplex, following the same idea, our prices per square foot to you will be $2.25 unsealed, $2.55 sealed, on quantity orders, and $3.14 sealed and $2.84 unsealed on tailor-made jobs. The reason for the larger differential is that the breakage that takes place in sealing causes a heavier loss on the higher priced product.

Since quoting you last, the price of celluloid has advanced 30% and as our quotation was based on the costs of materials, we know you will appreciate the fact that we are doing everything we can to co-operate by absorbing this in our prices, which is only possible because we are continuing to improve our efficiency and reduce our costs. We hope to make considerable further progress along these lines as we continue to do business with you. Only recently we were successful in greatly improving upon our method of sealing.

You can rest assurred that I am going to see that the Stutz Company gets a square deal, and I am writing you this letter now to cover the matter temporarily, as I will discuss it with you fully next week when I am in Indianapolis.

Very truly yours, Neilson Edwards, Vice-President.

(Here follows 1 photo, side folio 1214.)

PLAINTIFF'S EXHIBIT NO. 13.

...e would believe them to be supernat-...ural."

Chrysler Adopts Triplex Glass

NO WIRE USED IN IT; WILL NOT THROW SPLINTERS UPON IMPACT

An innovation emphasizing the safety element of modern motoring is seen in the announcement today that the Chrysler Sales Corporation is now prepared to offer Triplex Glass as optional equipment in all models. This marks the first adoption of a clear-vision glass, designed to eliminate danger of cuts in case of accident, by any American automobile manufacturer.

In a booklet prepared for Chrysler dealer, six reasons for this step are cited. It is explained that Triplex Glass, being built of two layers of selected plate glass with a binding middle layer of pyroxalin plastic, is flexible under impact, and therefore does not throw splinters. That it softens the sun's direct rays, breaks headlight glare, and eliminates condensation in closed cars during winter driving, are other reasons. It is further stated that it can not be cut with a diamond and thereby renders closed cars less susceptible to theft.

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From the Adams City Press and many other papers

THE TRIPLEX SAFETY GLASS CO.
of North America, Inc.
Hoboken Terminal, Hoboken, N. J.

1214

[fol. 1215] **PLAINTIFF'S EXHIBIT NO. 14**

Memorandum Agreement, entered into this 20th day of December, 1928, between the Triplex Safety Glass Company of North America, Inc., of Clifton, New Jersey, hereinafter called the "Seller," and the Stutz Motor Car Company of America, Inc., of Indianapolis, Indiana, hereinafter call- the "Buyer".

Witnesseth: The Seller agrees to sell, and the Buyer agrees to purchase one (1) year's requirements of Triplex Safety Glass of both Standard and Utility quality, at the price, and upon, and subject to the following terms, conditions, specifications, and to Buyer's blueprint, the following articles, hereinafter referred to as the "Articles".

Buyer's part number	Part name	Price
	Our entire year's requirement—	
	Standard Quality	$2.25 sq. ft.
	Utility Quality	$1.45 sq. ft.

Prices mentioned above are for glass unsealed.

F. O. B.: Clifton, N. J.

Terms: [2]*% 10th prox net [30 days]*

Deliveries: Seller will deliver to Buyer without charge for boxing, crating, or storage, suitably packed to secure lowest transportation cost, and in accordance with requirements of the Common Carriers, at such times between December 20, 1928, and December 20th, 1929, as Buyer may designate on its regular form of purchase order, or by written delivery schedule furnished the Seller.

Deliveries: Seller agrees to increase, or decrease, deliveries, as Buyer may direct, upon receiving notice from Buyer to do so. Buyer will give releases in form of regular bona fide purchase orders for its requirements, with bona fide delivery specifications thereon. These orders to be issued by the Buyer approximately every 60 days.

In the event the above schedules have been given, Seller agrees to have the month's schedule shipped in its entirety by the 5th of the month, and in case shipment is not made by the 5th of the month, the Seller agrees to stand any

---

[* Matter in brackets, struck out in copy.]

[fol. 1216] extra transportation charges incurred in order to meet Buyer's production requirements.

Insolvency and Cancellation: In the event of any proceedings, by or against the Seller, voluntary or involuntary, in bankruptcy, or in solvency, or for the appointment of a Receiver, or Trustee, or an Assignee for the benefit of the Creditors of the property of the Seller; or, in the event of the breach of any of the terms hereof, including the warrants of the Seller, the Buyer may forthwith cancel this agreement, and the orders placed thereunder, by telegram, verbal or by written notice.

In the event of the occurrance of any of the foregoing contingencies, and because thereof, this agreement and the orders placed thereunder are cancelled, and Seller hereby releases the Buyer from all claims of every kind and character, except any claim Seller may have for merchandise delivered to and accepted by the Buyer.

Special Equipment: Unless otherwise herein agreed, special dies, tools and patterns used in the manufacture of said articles shall be furnished by and at the expense of the Seller. Said dies, tools and patterns shall be kept in good condition, and from time to time, when necessary, shall be replaced by the Seller, without expense to the Buyer. However, the Buyer has the option at any time to reimburse the Seller for the whole, or any part of said dies, tools and patterns and replacements, and become the owner, and entitled to the possession of same. All changes in said dies, tools, and patterns, due to Buyer's change of design, or specifications, shall be paid by the Buyer.

Specifications: Said articles shall be according to specifications, drawings, samples, or other description furnished, or adopted, by the Buyer.

Warranties: The Seller warrants articles supplied under this agreement to conform to specifications herein; to be fit and sufficient for the purpose intended, merchantable, and of good material and workmanship, and free from defect.

Inspection and Rejection: All articles shall be subject to the Buyer's inspection within a reasonable period after delivery, irrespective of date of payment thereof, and the Buyer shall promptly notify the Seller of any defects detected, and to hold any articles so claimed to be defective,

[fol. 1217] for the Seller's instructions, and at his risk, for a reasonable period of time, not to exceed 60 days.

The Buyer is responsible only for such materials Seller may have on hand, in transit, or in process of manufacture on Buyer's bona fide purchase orders.

Patent Protection: The Seller warrants that the articles purchased hereunder do not, and will not infringe any Letters Patent granted by the United States of America, or by any country foreign thereto. The Seller covenants and agrees to save harmless, and protect the Buyer, its successors, assigns, customers, and users of its product, against any claim, or demand based upon such infringement and after notice to appear and defect at its own expense any suits at law, or in equity, arising therefrom. If said articles are protected by one, or more, patents and a decree, or judgment be entered in a court of competent jurisdiction holding any such patent, or its claim invalid, or so limited in scope as to impair its protection commercially, this contract may forthwith be cancelled.

Non-Performance Excused: It is agreed that all shipments and deliveries mentioned in this agreement are subject to strikes, fires, accidents, and all other causes beyond the control of the Seller or Buyer.

Remedies, Etc.: The remedies herein reserved shall be cumulative and additional to any other or further remedies provided in law or equity. No waiver of any breach of any provision of this agreement shall constitute a waiver of any other breach or of such provision. Except as herein expressed, there are no antecedents or any other agreements respecting the subject matter hereof. Any modifications or variations of this contract to be binding shall be in writing, executed in behalf of the parties of like authority of this contract.

The Seller shall not, without first obtaining the written consent of the Buyer, in any manner advertise, or publish the fact that the Seller has contracted to furnish the Buyer the articles herein mentioned, and for failure to observe this provision, Buyer may have the right to cancel this agreement without any further liability thereon.

This Agreement is to be construed according to the laws of the State of Indiana, and is non-assignable by the Seller. [fol. 1218] In witness whereof: The parties have hereto

caused these presents to be executed in duplicate the year and date first about written.

Stutz Motor Car Company of America, Inc., by C. D. Kelly. Triplex Safety Glass Co. of North Amer., by (Illegible).

PLAINTIFF'S EXHIBIT NO. 15

Letter—Johnston Glass Company to Haskell, May 20, 1929

(Later Ruled Out)

(Not Printed)

PLAINTIFF'S EXHIBIT NO. 16-A

Purchase Order No. 400½, August 15, 1928

(Not Printed)

PLAINTIFF'S EXHIBIT NO. 16-B

Purchase Order No. 3424, September 20, 1929

(Not Printed)

PLAINTIFF'S EXHIBIT NO. 16-C

Purchase Order No. 4441, January 10, 1930

(Not Printed)

PLAINTIFF'S EXHIBIT NO. 16-D

Purchase Order No. 4556, January 20, 1930

(Not Printed)

PLAINTIFF'S EXHIBIT NO. 16-E

Purchase Order No. 4708, February 4, 1930

(Not Printed)

PLAINTIFF'S EXHIBIT NO. 17

(No Exhibit Marked for this Number)

PLAINTIFF'S EXHIBIT NO. 18

Monthly Statement (Identified)

(Not Printed)

(Here follow 4 photos, side folios 1219, 1220, 1221 and 1222)

	1000	2000	5000	10000
	F - C - C+P	F - C - C+P	F - C - C+P	F - C - C+P
W. Pl	3.32 ~~3.35~~ - 3.03 - 2.81	3.25 ~~3.27~~ - 3.06 - 2.74	3.15 ~~3.17~~ - 3.06 - 2.64	2.84 - 2.79 - 2.37
Ille. Pl	3.04 - 2.96 - 2.66	2.95 ~~2.96~~ - 2.87 - 2.57	2.85 ~~2.86~~ - 2.77 - 2.47	2.58 - 2.50 - 2.20
V Sh.	1.91 ~~1.95~~ - 1.87 - 1.87	1.89 ~~1.90~~ - 1.79 - 1.79	1.80 - 1.70 - 1.70	1.51 - 1.41 - 141
"	1.88 - 1.80 - 180	1.80 - 1.72 - 172	1.70 - 1.62 - 162	1.42 1.41 - 1.34 - 134

Pl Trader Ex 19

F = Fisher gradation 5/17/31 E.B.

C = @ new celluloid fairce 1.N

C+P = @ " " " 1.N and
new glass @ 39° & 42° plate

PLAINTIFF'S EXHIBIT NO. 19.

925A

1219

9721

TRIPLEX SAFETY GLASS COMPANY
OF NORTH AMERICA

G.19

INTER-ORGANIZATION LETTERS ONLY

SUBJECT Quotations Hudson Motors

FROM S. W. Caulfield

IN REPLY ATTENTION OF Dec. 13, 1927

ber 11, the attached price quotations were given to Mr. Haskell for his guid-
ance while in Detroit, methods of arriving at these figures are shown on the at-
tached sheets and in the work papers in the cost estimate file.

S. W. CAULFIELD

SWC:T

TRIPLEX SAFETY GLASS COMPANY
OF NORTH AMERICA

G.19

INTER-ORGANIZATION LETTERS ONLY

SUBJECT Price Quotations Fischer Body

FROM S. W. Caulfield

FOR ATTENTION OF DEC 13, 1927

eference to the quotations given to Fisher Body for General Motors On December
revised estimates were made December 11, Mr. Haskell taking figures obtained
with him to Detroit on that day.

or reference to these figures, see file of cost estimates.

S. W. C.

1220

Quotations to be given Hudson 17/12/27
Ex. 19

		Order 1000 yard 7500 pc. day	Order 2000 yard 3000 pc. day	Order 5000 yard 10000 pc. day	Order 12000 yard 25000 pc. day	
Windscheilds - Plate						
Fisher quote @ 61° glass	1/4" all.	303	316	326	279	✓
Additional cost due to 3½ sq. inches						
add to celluloid cost per ft.		10	10	10	10	
(2) Hudson quote 61° glass	1/4" all.	333	326	316	289	
Fisher quote @ 45° glass	1/4" cell.	291	278	264	237	✓
Additional cost due to celluloid		10	10	10	10	
(3) Hudson quote 45° glass	1/4" cell.	291	258	274	247	
Other Lights - Plate same as Fisher						
(3) i.l. @ 61° glass	1/4" all.	296	287	277	250	✓
(4) @ 45° "	1/4" "	266	257	247	220	✓
Windscheilds - Sheet						
Fisher quote @ 1/4"	celluloid	187	179	170	141	✓
Addition cost due to 3½ ft windscheilds (20% charge)						
Add to celluloid cost per ft		17	17	17	17	
(1) Hudson quote 1/4"	celluloid	199	191	182	153	
Other Lights - Sheet - same as Fisher						
i.l. celluloid @ 1/4"		180	172	162	134	✓

67
1221

Production Sheet

Dec 1927.

	Based on orders & probable for day	per day for day	1000 Nos.	7000 3000	5000 10000	10000 30000
Based on present power plant & boilers						
Annealed Plate	approx 6½		337	340	340	
Other Lights			300	325	361	
Hand rolled Sheet		6½	167	164	170	
Other Lights			155	180	170	
Hand rolled Plate - Sheet	approx 6½		340	330	340	
	70		209	201	192	
Based on 10 Galvanizing & power plant						
Annealed Plate	approx 6½		303	306	306	
Other Lights			296	287	277	
Hand rolled Sheet		7½	171	179	170	
Other Lights		6	150	172	184	
Annealed Plate	approx 5½		303	300	306	
Sheet	60	5½	179	171	182	
Based on 10 additional 39 boilers (Plate)						
Annealed Plate		8½	261	270	270	
Other Lights			266	270	267	
Annealed Sheet		8½				
Other						
Annealed Plate		3½	271	270	270	
Sheet		3½				

End forms

472

[fol. 1223] **PLAINTIFF'S EXHIBIT NO. 20**

Lease—Pittsburgh Plate Glass Company and Pittsburgh Safety Glass Company

(Not Printed)

[fol. 1224] **PLAINTIFF'S EXHIBIT NO. 21**

(Copy)

Memorandum of Agreement entered into on the 14th day of December, 1927, by and between Du Pont Viscoloid Company, a corporation of the State of Delaware, herein after referred to as DuPont Company, and Pittsburgh Plate Glass Company, a corporation of the State of Pennsylvania, hereinafter referred to as Pittsburgh Company:

Witnesseth:

Whereas Pittsburgh Company is engaged in the manufacture and sale of plate glass, and has conducted numerous researches and experiments having for their object the development of a non-splintering glass for use in automobile windshields, and has developed a process for such a glass by laminating thin layers of plate glass with sheets of pyroxylin material; and

Whereas DuPont Company is engaged in the manufacture of pyroxylin plastics and is a large producer of pyroxylin sheeting of the kind and grade suitable for use in the manufacture of so-called non-splintering glass; and

Whereas DuPont Company also has conducted numerous researches and experiments having for their object the production of a grade of non-splintering glass suitable for commercial use; and

Whereas the parties hereto desire to enter into a joint enterprise having for its object the manufacture and sale [fol. 1225] of non-splintering glass by the processes and methods heretofore developed by Pittsburgh Company and DuPont Company, and to that end have agreed that a corporation shall be organized for the purpose of manufacturing and selling said glass in the United States and elsewhere, upon the terms and conditions hereinafter set forth;

Now, Therefore, in consideration of the premises and

in consideration of the mutual undertakings of the parties hereto, they have agreed and by these presents do agree with each other as follows:

First. Promptly upon the execution hereof, a corporation shall be organized under the laws of the State of Delaware, with such name as the parties hereafter shall fix by agreement (but for the purpose of identification herein to be referred to as Glass Company) which corporation shall have a capital stock of One Million Dollars ($1,000,000), divided into ten thousand (10,000) common or ordinary shares of the nominal or par value of One Hundred Dollars ($100) per share, which common or ordinary shares shall be vested with sole voting power.

Second. DuPont Company and Pittsburgh Company each shall subscribe for One Hundred Thousand Dollars ($100,000) of the authorized issue of said common or ordinary shares of said Glass Company, and shall pay their respective subscriptions to said Glass Company as and when calls thereon shall be made by the Board of Directors of Glass Company; it being the intention of the parties to [fol. 1226] subscribe in equal half parts for the remainder of the authorized capital from time to time when and as required.

Third. Upon the organization of said Glass Company, the parties hereto shall cause said Company to lease or otherwise acquire, for such term as shall be appropriate for the needs of said Company, suitable real property on which to erect a plant for the manufacture of the non-splintering glass herein referred to, and said parties shall cause said Glass Company to erect on said premises a plant with such capacity for the production of said non-splintering glass as DuPont Company and Pittsburgh Company shall determine.

Fourth. As soon as the selection of said plant site shall be made, both DuPont Company and Pittsburgh Company shall render to Glass Company all reasonable aid and assistance, including the benefit of their knowledge, skill and experience, to the end that a plant on said premises shall be completed at the earliest possible date and placed in continued and successful operation throughout the life of this agreement. All services not advisory in character, how-

ever, and involving the employment of draftsmen, engineers or skilled operators in the employ of either DuPont Company or Pittsburgh Company shall be charged to Glass Company at the fair value for such services.

Fifth. The directors of said Glass Company shall be six (6) in number, and at all elections for directors each stockholder shall have as many votes as shall equal the number of shares held by such stockholder, multiplied by the number of directors to be elected, and any stockholder may [fol. 1227] cast all of his votes for a single director, or may distribute them among any two or more of the number to be elected, as it shall see fit; it being understood and agreed that at all meetings of said directors no action shall be taken upon any question except by a majority vote of the full Board.

Sixth. The parties hereto mutually agree that they will cast their votes at all meetings of the stockholders and directors of said Glass Company in such a manner that each party shall be represented by three (3) members of said Board of Directors, and so that the President and General Manager of said corporation shall be a representative of Pittsburgh Company, and the Chairman of the Board of Directors shall be a representative of DuPont Company.

Seventh. Promptly upon the organization of said Glass Company, both parties hereto agree that they and each of them shall give and grant to said Glass Company the non-exclusive right to use *and* any and all processes, inventions, formulæ, patents or patent rights which the parties hereto, or either of them, shall own at the date hereof, in so far as said processes, inventions, formulæ, patents or patent rights may be used or are directly or indirectly susceptible of application in the manufacture of non-splintering glass consisting of a composite article made by laminating layers of plate glass and pyroxylin sheeting or other plastic materials.

Eighth. If either party hereto during the life of this agreement shall develop or discover any improvement on such laminated glass, or any improved method of manu- [fol. 1228] facturing such glass, the Glass Company shall have the non-exclusive right, without royalty or other payment, to use the same and should any such improvement

or method be developed by a subsidiary company of either party, the parties hereto agree that they will use their best efforts to cause any such subsidiary to grant to the New Company the non-exclusive right to use any such improvement or method without royalty or other payment.

Ninth. If either party should purchase or enter into any contract to purchase any United States or foreign patent on, or any right or rights in, any invention for such laminated glass or improvement thereon, or any process for the manufacture thereof, such party shall deliver forthwith to the Glass Company a written notice and proposal containing:

(1). Notice of such acquisition with description of the invention and detailed information relative to the price paid therefor, and the terms and conditions thereof, including copies of any and all contracts or other written instruments relating thereto.

(2). Either an offer (a) to sell, transfer and assign all rights so acquired by the proposer, to the Glass Company, for the actual price paid by the proposer for the same, plus interest and expenses, if any, and on the terms and conditions, and subject to the royalties, obligations undertaken to be paid, performed and conformed to by the proposer in and by the contract under which it acquired such rights; Or an offer (b) *an offer* of a non-exclusive license to use such patents or rights, subject to the obligations as- [fol. 1229] sumed by the proposer and the payment of a portion of the royalties or payments assumed by the proposer which shall be fixed by agreement and if the parties shall be unable to agree on a fair apportionment of such royalties or charges, then the amount thereof shall be determined by three arbitrators, one to be selected by each party and the third to be selected by the two thus chosen, and the decision of any two of said arbitrators shall be binding on both parties.

(3). A statement of a period of time, not less than thirty (30) days from the service of the notice, within which the Glass Company shall by its officers duly authorized, accept such offer by written instrument delivered to the proposer within the period of time so stated. If offer (a) be made, and be so accepted, then proposer shall assign to the Glass

Company the said patents and/or rights upon payment forthwith of the sum so to be paid therefor, and the Glass Company itself shall assume, so that the proposer thenceforth shall be relieved of all obligations and liabilities, and the performance of all the terms and conditions which were assumed or were to be assumed by the proposer under the terms of the contract whereby the proposer acquired such rights. If offer (b) be made, and be accepted, then the Glass Company shall become obligated for and shall assume the obligations and make the payments provided for in offer (b): or, if there should be an arbitration, the Glass Company shall become obligated for and shall assume such obligations and make such payments as shall be fixed and determined by a majority of the said arbitrators. [fol. 1230] If the offer be not accepted by the Glass Company within the period of time named therein, then the party making the offer shall be under no further obligation to the Glass Company with respect to the patents, rights, etc. so purchased.

Tenth. In order to promote the best interests of both of the parties hereto, to the end that they both shall have and enjoy the maximum benefit and profit from the joint understanding herein referred to, it is agreed that said Glass Company shall purchase and accept from DuPont Company all pyroxylin plastics, and from Pittsburgh Company all polished plate glass and/or window glass, and from either or both of said companies all other basic materials which shall be needed, required or used in the business of said Glass Company, provided always that any and all such materials so purchased by Glass Company from either party hereto shall be sold and delivered by such party at a price which shall not be more than the price for said basic materials which either party hereto shall offer to or receive from its more favored customers for similar quantities.

Eleventh. Both DuPont Company and Pittsburgh Company agree that it is the spirit and intention of this agreement, until the processes herein referred to shall be perfected to a degree satisfactory to both parties, capital expenditures by said Glass Company shall be curtailed as far as possible, and that permanent investment by said company for plant and equipment shall be made only upon and according to the agreement of both parties.

[fol. 1231] Twelfth: It is further mutually understood and agreed that the certificate of incorporation of said Glass Company shall contain all necessary provisions in order to carry out the terms and conditions of this agreement, to the satisfaction of counsel for both of the parties hereto.

Thirteenth: In order to secure safe and prudent management in the interest of the whole number of stockholders of said Glass Company, and to prevent the purchase of its stock for speculative purposes, it is agreed that neither party hereto shall sell, assign, hypothecate or in any wise encumber its stock interest in said Glass Company for a period of five (5) years from the date hereof, and that after such date neither party hereto shall so sell, assign or otherwise dispose of its stock interest in said Glass Company unless and until said stock first shall be offered to the other party to this agreement, at a price not greater than that which shall be fixed by bona fide offers from others. And in the event that either party hereto shall sell or assign its stock interest in said Glass Company, it is covenanted and agreed that the party hereto making any such sale shall bind the purchase of such stock to keep and perform the conditions of this agreement and assume all of the obligations with respect to the ownership thereof that the parties hereto have by these presents assumed toward each other; it being understood and agreed always that the party making any such sale shall not be released from any subscription contract or other liability to the Glass Company, without the written consent of the other party hereto.
[fol. 1232] Nothing herein contained shall operate to prevent either party hereto from transferring said stock to any company owned or controlled by it to any company owning or controlling a majority of its stock.

Fourteenth. It is the understanding and intention hereof that as and when Glass Company shall have completed the construction of its plant and shall produce non-splintering glass suitable for sale, Pittsburgh Company shall be the sole and exclusive sales agent for said Glass Company on such terms and conditions as hereafter shall be fixed by separate agreement between said Pittsburgh Company and said Glass Company; it being the further understanding and intention that unless Pittsburgh Company and DuPont Company otherwise agree, such exclusive agency shall be

terminated if Pittsburgh Company shall engage in the manufacture of non-splintering glass.

In Witness Whereof the parties hereto, by their officers duly authorized, have caused this agreement to be executed, and their respective corporate seals to be hereunto affixed, on the day and year first above written.

Du Pont Viscoloid Company, by F. B. Davis, Jr., President.

Attest: M. D. Fisher, Secretary. (Seal.)

Pittsburgh Plate Glass Company, by Charles W. Brown, President.

Attest: C. S. Lamb, Secretary. (Seal.)

Form approved: C. M. Spargo, Legal Department.

(Here follow 8 photos, side folios 1233-1240.)

PLAINTIFF'S EXHIBIT NO. 22.

980A

Pl. Masters Ex. 22
5/22/31 F. R.

Pittsburgh Plate Glass Company

Works No. 1

H. B. HIGGINS, General Sales Manager

Date 5/3/28

(5)

We have to-day delivered to the Laminated Glass Department, the following glass:

CHECK	FOR ORDER	No. PLATES	SIZE	QUALITY	FEETAGE		
#1386		4	16 7/16 x 29 7/8		5 5 15	—	1
		2	11 3/16 x 47		x 7	—	1
#2328		54	14 7/16 x 21 7/16		x 132	—	1
		54	15 x 21 7/16		x 132	—	1
#417		16	11 3/8 x 31		x 4 248	8	1
#450		2	15 5/8 x 42 3/8		x 9	9	1
		4	16 3/8 x 29 3/8		x 15	—	1
		2	9 1/4 x 28 3/4		x 4	2	—
		4	9 5/8 x 44 3/4		x 6	4	8
		2	8 x 44 3/4		x 5	1	1
#83		6	6 7/16 x 7 11/16	4'	4 2	4	0
		1	6 x 23	6"	x 0	11	6
#495		2	15 x 48 1/2	5 7	x 11	1	4
#3075		8	21 5/8 x 56	7 1 9	x 6 4	5	4
			x				

Remarks

4 2 . 11 . 2

Received

Laminated Glass Dep't.

9801B

Ey 22
P. 1.

Pittsburgh Plate Glass Company

Works No. 1

H. B. HIGGINS, General Sales Manager

Date May 2[illegible] 1916

(4)

We have to-day delivered to the Laminated Glass Department, the following glass:

CHECK	FOR ORDER	No. PLATES	SIZE	QUALITY	FOOTAGE
#2.0		1	[illegible]	[illegible] 11.4.6	X 3 10 -
#344		3	[illegible]	[illegible]	X 7 2 8
		2	[illegible]		X 7 2 8
		2	[illegible]	5-7	X 12 2 8
		4	[illegible]	[illegible]	X 11 1 4
#545		2	[illegible]	1-[illegible]	4 8 -
		2	[illegible]		4 8 -
#2731		2	[illegible]	1-[illegible]	X 3 - -
		2	[illegible]	1-[illegible]	X 3 9 -
		2	[illegible]		X 3 9 -
		2	[illegible]	[illegible]	X 3 1 [illegible]
		2	[illegible]	1-[illegible]	X 4 3 [illegible]
		2	[illegible]		X 3 10 [illegible]
		2	[illegible]	1-[illegible]	X 3 6 [illegible]
		2	[illegible]		X 3 - [illegible]
		2	[illegible]		X 3 6 [illegible]
		2	[illegible]		X 3 [illegible]

Remarks

86-1[illegible]

1234

Received.....

Laminated Glass Dep't.

9800

PLAINTIFF'S EXHIBIT NO. 22-A.

Form 989

Pittsburgh Plate Glass Company

Works No. 1

F. W. Judson, Director of Sales

Date 7/1/30

We have to-day delivered to the Laminated Glass Department, the following glass:

CHECK	FOR ORDER	No. PLATES	SIZE	QUALITY	FEETAGE		
			Delivered to Messrs				
12455	61	100	12 x 16	Clear Polished	325		
					325	0	0

Remarks

1/2 11 5 d

Received

Laminated Glass Dept

7235

9801

Form 989

(28)

Pittsburgh Plate Glass Company

Works No. 1

Ex 22-A P.2

5/6/30.

F. W. Judson, Director of Sales

Date .....

We have to-day delivered to the Laminated Glass Department, the following glass: Studebaker

CHECK	FOR ORDER	No. PLATES	SIZE	QUALITY	FEETAGE		
			Delivered				
242369 E	345	200	15" x 17½"	(illegible)	708.	0	0
242571 E	357	236	14. 32	" .045	734	2	8
241168 E	364	1025	14. 44	" "	4984	8	8
					6426	11	4

Remarks

1236

Received .....

Laminated Glass Dep't.

PLAINTIFF'S EXHIBIT NO. 22-B.

Pl. Masters Ex 22-B
6/22/31 P.B

Form 980

(34)

Pittsburgh Plate Glass Company

Works No. 1

F. W. Judson, Director of Sales Date 6-8-31.

We have to-day delivered to the Laminated Glass Department, the following glass: From Grenloch P. Penna.

CHECK	FOR ORDER	No. PLATES	SIZE	QUALITY	FEETAGE		
	244	400	17 x 26	1-7/64 ✓	1300	0	0 ✓
			Masters				
d	244	1000	14 x 42	2-" "	4083	4	0 ✓
			J. H. Smith				
d	236	400	14 x 44	2-0 "	1711	1	4 ✓
d	236	1000	13 x 43	" "	4277	9	4 ✓
			Masters Penn				
	62	240	14 x 40	" "	933	4	0 ✓
			Avonmouth				
d	280	25	12 x 44	2-0 ✓	91	8	0 ✓
Stock		90	16 x 40	1-0	400	0	0 ✓
		50	16 x 42	1-0	233	4	0 ✓
		120	16 x 44	1-0	586	8	0 ✓
		30	16 x 46	1-0 ✓-7	153	4	0 ✓
Remarks	100		14 x 42 " 0 ✓		408-4	-0 ✓	

17540-0-8

14178-10-8

Received

9801

Form 989

Pittsburgh Plate Glass Company

Works No. 1

F. W. Judson, Director of Sales

Date 5-9-29

We have to-day delivered to the Laminated Glass Department, the following glass:

CHECK	FOR ORDER	No. PLATES	SIZE	QUALITY	FEETAGE		
Pat 7	95	1400	16 x 46	1-7/16	1145	6	8
" 14		600	18 x 24	" "	1500	0	0
" 4		600	18 x 20	" "	1250	0	0
" 13		800	18 x 36	" "	2600	0	0
			J. K. Smith				
D	226	816	13 x 43	2-0	3490	8	0
			Pierce Arrow				
	109	40	20 x 52	1-7-10	289	10	8
			Austin Pass.				
	60	200	14 x 42	2-0	816	8	0
			Auto Pass.				
D	244	400	13 x 42	2-0	1633	4	0

Remarks

19627-4

19135-1-4

Received

Laminated Glass Dep't.

1238

PLAINTIFF'S EXHIBIT NO. 23.

GOODS SHIPPED AT PURCHASER'S RISK OF BREAKAGE UNLESS INSURANCE IS SPECIFICALLY EFFECTED
ALL CLAIMS MUST BE MADE WITHIN THREE DAYS FROM RECEIPT OF GOODS

Pittsburgh Plate Glass Company.

GLASS - MIRRORS - PAINTS

TERMS: 30 DAYS NET
1% CASH 10 DAYS.

2223 GRANT BLDG.

CABLE ADDRESS "GLASSPIT"

PITTSBURGH, PA. 5- 1929 19

SOLD TO

CAR NO.

WORKS OUR ORDER

SHIPPED TO

CASES YOUR ORDER

SHIPPED VIA

MEMO	PLATES	SIZE	QUALITY	FEET		PRICE	AMOUNT	TOTAL
			Qual. 1- 7/64	28/5	59385-10-0	.45	26723.62	
			(Mir Glas)	5/7	268-4-0	.49	131.48	
				7/10	4209-9-4	.51	2146.99	
			Qual. 11. "	1/28B	25-0-0	.35	8.75	
			(Glas)	28/5	69218-0-9	.39	26995.04	
				5/7	8724-9-4	.42	3664.41	
				7/10	1134-11-4	.43	488.02	
				10/15	334-0-0	.44	146.96	
			Qual.1. 7/64"	1/28B	1250-0-0	.39	487.50	
			(Mir Glas.)	28/5	17105-4-8	.45	7697.43	
				5/7	19924-0-0	.49	9762.76	
					38279-4-8			78252.98
					less 1%			782.53
								$77470.43

1239

9801

GOODS SHIPPED AT PURCHASER'S RISK OF BREAKAGE UNLESS INSURANCE IS SPECIFICALLY EFFECTED
ALL CLAIMS MUST BE MADE WITHIN THREE DAYS FROM RECEIPT OF GOODS

Pittsburgh Plate Glass Company.

GLASS - MIRRORS - PAINTS

TERMS: 30 DAYS NET
1% CASH IO DAYS.

2225 GRANT BLDG.

CABLE ADDRESS
"GLASSPIT"

PITTSBURGH, PA. 5-1929 19

SOLD TO Duplate Corp.
Creighton, Pa.

SHIPPED TO

OUR ORDER
YOUR ORDER
WORKS 1
CASES
CAR NO.
SHIPPED VIA

MEMO	PLATES	SIZE	QUALITY	FEET		PRICE	AMOUNT	TOTAL
			Qual. 1- 7/64	28/5	59385-10-0	.45	26723.62	
			(Mir Glaz)	5/7	268-4-0	.49	131.48	
				7/10	4209-9-4	.51	2146.99	
			qual. 11. "	1/28B	25-0-0	.35	8.75	
			(Glaz)	28/5	69218-0-8	.39	26995.04	
				5/7	8724-9-4	.42	3664.41	
				7/10	1134-11-4	.43	488.02	
				10/15	334-0-0	.44	146.96	
			qual. 1. 7/64"	1/28B	1250-0-0	.39	487.50	
				28/5	17105-4-8	.45	7697.43	
			(Mir.Glaz)	5/7	19924-0-0	.49	9762.76	
					38279-4-8			78252.96
					Less 1%			782.53
								77470.43
			5/15 Less Partial Payment per Vdy. Sub No. 3386					53500.00
								23970.43

Voucher No. 3487

End form

1240

[fol. 1241] **PLAINTIFF'S EXHIBIT NO. 24**

License Agreement

Agreement made this 20th day of May 1929, between Triplex Safety Glass Company of North America, a corporation organized under the laws of the State of Delaware and having its principal office in Clifton, in the State of New Jersey, hereinafter called the "Licensor", and The Johnston Glass Company, a corporation organized under the laws of the State of Indiana and having its principal office in Hartford City, in the State of Indiana, hereinafter called the "Licensee."

Whereas the Licensor is the owner of the entire right, title and interest, within and throughout the United States and the territories and colonial possessions thereof, in and to several inventions relating to the manufacture of laminated glass, and of several letters Patent of the United States for some of such inventions, the numbers, dates of issues, names of inventors and titles of which are as follows:

Number	Date	Name	Title
1,098,342	May 26, 1914	Edouard Benedictus	Reinforced Glass and Process of Manufacturing the Same.
1,128,094	Feb. 9, 1915	Edouard Benedictus	Reinforced Glass and Its Manufacture.
1,182,739	May 9, 1916	Edouard Benedictus	Manufacture of Strengthened Glass.
1,206,656	Nov. 28, 1916	Edouard Benedictus	Press Plate.
1,342,267	June 1, 1920	Leon Francois Mascart	Reinforced Glass and Process of Making the Same.
1,342,268	June 1, 1920	Leon Francois Mascart	Manufacture of Reinforced Glass.
1,686,942	Oct. 9, 1928	Henry J. Thielker	Speech Vent.
1,703,122	Feb. 26, 1929	Henry J. Thielker	Gun Port for Windshields.

[fol. 1242] and is the owner of the entire right, title and interest in and to further improvements and inventions relating to the manufacture of laminated glass, for which further improvements and inventions it is the intention of the Licensor to obtain Letters Patent of the United States if possible, and is from time to time developing and perfecting or causing to be developed and perfected and is acquiring further improvements and inventions relating to the manufacture of laminated glass; and

Whereas, the Licensee is desirous of acquiring the right and license to make, use, practice and employ throughout the United States and the territories and colonial possessions thereof in the manufacture of laminated glass the inventions and improvements described and claimed in said several letters Patent of the United States and said further improvements and inventions, upon the terms and conditions hereinafter set forth.

Now, Therefore, in consideration of the premises and of the mutual covenants hereinafter made, and of the sum of One Dollar by each party to the other in hand paid, the receipt whereof is hereby acknowledged, the parties hereto have agreed together as follows:

First: The Licensor hereby grants to the Licensee the right and license to make, use, practice and employ in the manufacture of laminated glass, and to sell the same throughout the United States and the territories and colonial possessions thereof, the inventions and improvements described and claimed in said several Letters Patent of the United States and said further improvements and inventions. The said right and license shall be non-exclusive, [fol. 1243] indivisible, non-assignable and non-transferable either by operation of law or by act of party, except to successors to substantially the entire business of the Licensee of manufacturing laminated glass, together with the good will of the same.

It is understood that the right and license herein given and granted is given and granted subject to the approval of Triplex Safety Glass Company, Ltd., of London, England, so far as such approval shall be required or necessary.

Second. This agreement and all of the rights and licenses given and granted by the Licensor to the Licensee under the terms of this agreement shall continue and remain in full force and effect, subject to the expiration in the meantime of any Letters Patent covered by or included within the scope of this agreement, until January 1, 1950, unless the same shall be terminated in any manner hereinafter provided.

Third. The Licensee admits the validity of the said several Letters Patent and the exclusive rights of the Licensor therein and thereunder and will not contest the same directly or indirectly or aid any other party in so doing.

Fourth. The Licensee shall keep true and accurate books of account covering the manufacture and sale or other disposition by it of laminated glass embodying any of the inventions or improvements covered by or included within the scope of this agreement and shall permit the duly authorized representative of the Licensor, at all reasonable times during business hours, to inspect such books of account.

Fifth. The Licensee shall within thirty (30) days after the first day of January, April, July and October of each [fol. 1244] year during the continuance of this agreement deliver to the Licensor a written statement specifying all laminated glass embodying any of the inventions or improvements covered by or included within the scope of this agreement which shall have been made, sold, or otherwise disposed of by the Licensee during the three preceding months, tog-ther with the prices at which the same is sold or otherwise disposed of and the names and addresses of the parties to whom the same is sold or otherwise disposed of and the quantity sold or disposed of to each such party, the first such written statement to be rendered within thirty (30) days after June 1st, 1929 and to cover all such laminated glass made, sold or otherwise disposed of by the Licensee prior to the first day of June 1929.

Sixth. The Licensee shall pay to the Licensor within thirty (30) days after the first day of January, April, July and October of each year during the continuance of this agreement, in respect of all laminated glass sold or otherwise disposed of by the Licensee, a royalty or license fee equal to five percentum (5%) of the price at which such laminated glass is sold or otherwise disposed of by the Licensee, or equal to ten cents (10¢) per square foot of the laminated glass so sold or otherwise disposed of, whichever of such royalties or license fees is the greater.

It is the intention of the Licensor and the Licensee that the sale or other disposition of laminated glass by the Licensee in any calendar year during the continuance of this agreement shall be limited to ten percentum (10%) of the aggregate sales price of laminated glass sold or otherwise disposed of by the Licensor during such calendar year, provided, however, that such ten percentum (10%) limitation shall not in any one year be less than one million dollars ($1,000,000.00). It is expressly understood and agreed that

[fol. 1245] if in any calendar year during the continuance of this agreement the total quantity of laminated glass sold or otherwise disposed of by the Licensee shall exceed such ten percentum (10%) of the aggregate sales price of laminated glass sold or otherwise disposed of by the Licensor during such calendar year or one million dollars ($1,000,000.00), whichever sum shall be the greater, then the Licensee shall pay to the Licensor, before April 1, of the succeeding year, in respect of all the laminated glass sold or otherwise disposed of by the Licensee during the preceding calendar year in excess of such ten percentum (10%) or one million dollars ($1,000,000.00), whichever sum shall be the greater, a royalty or license fee equal to twenty-five percentum (25%) of the prices at which such excess quantity of such laminated glass shall have been sold or otherwise disposed of by the Licensee during such preceding calendar year.

Seventh. The Licensee shall cause each piece of laminated glass sold or otherwise disposed of by the Licensee under the terms of this agreement to be clearly marked with the words "Licensed under Triplex Patents," by stamping said words on the celluloid or etching or sand-blasting said words on the glass, and in all of its advertisements and advertising literature shall state that the glass manufactured and sold or otherwise disposed of by it is manufactured under license under Triplex patents.

Eighth. All laminated glass manufactured or sold by the Licensee during the life of this agreement shall be deemed to be within the scope of Clauses 4, 5 and 6 of this agreement.

Ninth. The Licensor shall from time to time establish fair and reasonable prices and terms for the sale or other disposition of laminated glass embodying any of the inven- [fol. 1246] tions and improvements covered by or included within the scope of this agreement, and shall furnish to the Licensee a written schedule of such prices and terms, and shall from time to time thereafter inform the Licensee in writing of modifications of such schedule simultaneously with putting into effect such modifications by the Licensor; and the Licensee, in consideration of the right and license herein granted, shall sell laminated glass embodying any of the inventions or improvements covered by or included

within the scope of this agreement, only at and upon the prices and terms or conditions and modifications thereof maintained by the Licensor.

Tenth. The Licensor and the Licensee shall from time to time and promptly cause to be imparted on the part of each to the duly authorized representative or representatives of the other, full and detailed information as to all improvements or modifications in the manufacture of laminated glass which are or are thought to be advantageous, either in the way of improving the product or of reducing the cost of manufacture, or otherwise, and if the Licensor shall be advised that any of such modifications or improvements so imparted on the part of the Licensee is patentable to any officer or employee of the Licensee, then and in any such event, but at the option of the Licensor, the Licensee shall inform the Licensor as to the name and residence of the inventor thereof, and the Licensor shall at its expense cause to be prepared an application or applications for Letters Patent thereon, and the Licensee shall cause such application to be executed in due form of law by the inventor, together with an assignment of the entire interest therein to the Licensor, subject to a free license retained by the Licensee for itself and its successors during the continuance of this agreement; and the Licensee shall furnish to [fol. 1247] the Licensor, at the expense of the Licensee, whatever assistance shall be required by the Licensor in the preparation and prosecution of such application for patent.

Eleventh. All laminated glass manufactured by the Licensee under the terms of this agreement shall be subject to the inspection and approval of the Licensor, by its duly authorized representatives, and the Licensee shall at all times during the continuance of this agreement exercise or cause to be exercised all available skill and effort in the selection of materials and in the manufacture of the laminated glass, to the end that the quality of the laminated glass manufactured by it shall be fully equal to the quality of the laminated glass manufactured by the Licensor.

Twelfth. If the Licensee shall fail, neglect or refuse to perform any of the covenants herein made to be performed by it, then the Licensor shall have the right to and may notify the Licensee of such failure, or neglect, or refusal,

and if the Licensee shall not, within thirty (30) days after the service upon it of such notice, make with the Licensor adjustment or settlement of such failure, neglect, or refusal, satisfactory to the Licensor, then the Licensor shall have the right to and may at its option cancel and terminate this agreement, and all the rights, licenses, benefits and privileges of the Licensee therein and thereunder, by giving to the Licensee notice of such termination and cancellation. Each notice provided for in this agreement shall be in writing, and may be served by depositing the same in any Post Office in the United States in an envelope addressed to the Licensee to be forwarded by registered mail, postage prepaid, to the Licensee at the last known Post Office address [fol. 1248] of the Licensee, or by serving the same upon any officer of the Licensee, or by delivering the same at the principal office of the Licensee with an adult in charge thereof.

Thirteenth. The Licensor agrees at its own expense to use all proper means to prevent and stop infringement of the patents above noted. Specifically it agrees, in case substantial infringement exists at any time of any of the patents above noted under which the Licensee is carrying on the manufacture of laminated glass, to bring suit thereon promptly, and to prosecute such suit vigorously and diligently to final decision by a Court of Appeals, if that be necessary to stop the infringement. If as a result of such litigation the trial court refuses to enter a decree against defendant effective to stop the infringement complained of, then the Licensee shall be relieved of its obligation to pay royalty under this contract, until and unless such decree shall be reversed and such infringement enjoined, or until and unless such infringement is stopped as a result of other action by the Licensor within one year from said decree. But the unpaid royalties shall accumulate and be paid to the Licensor when and if such decree is reversed and such infringement enjoined, or when such infringement is otherwise stopped by the Licensor, provided that be done within one year from the date of said decree.

It is understood and agreed that when and if this agreement is terminated in any way, the rights and obligations of each party hereunder shall end, and all rights acquired by virtue of this agreement shall revert to the respective parties, as if this agreement had never been made, and each

shall be free to do anything or take any position as to validity, scope, or infringement of any patents included [fol. 1249] within the scope of this agreement, that could have been done or taken had this license never existed, it being expressly understood and agreed, however, that the title to any patents obtained by the Licensor under the provisions of Clause Tenth of this agreement shall remain and be in the Licensor, and that the Licensee shall have a free license under any and/or all patents or inventions which are made by its employees or officers which the Licensor shall elect to patent under this agreement in so far as the same do not infringe any of the Letters Patent specifically mentioned hereinbefore.

It is understood and agreed that any failure on the part of the Licensor to notify the Licensee of any failure, neglect or refusal on the part of the Licensee, shall not in any manner prejudice the Licensor as to any subsequent failure, neglect or refusal on the part of the Licensee.

It is understood and agreed that no cancellation and termination of this agreement as herein provided shall relieve, release or discharge, the Licensee from the payment to the Licensor of any sum or sums of money due and payable by the Licensee to the Licensor at the time of such cancellation and termination.

It is understood and agreed that if at any time during the continuance of this agreement the Licensor shall enter into with any other party a license agreement similar in character and import to this agreement but upon royalty terms more favorable to the Licensee than the royalty terms provided in this agreement, then this agreement shall be modified so that the royalty terms shall be as favorable to the Licensee herein as those provided in such other license agreement.

In witness whereof, the parties hereto have caused these presents to be signed by their duly authorized officers, and their corporate seals to be hereto affixed and duly attested, [fol. 1250] the day and year first above written.

Triplex Safety Glass Company of North America,
By A. L. Haskell, President. (Seal.)

Attest: S. W. Caulfield, Asst. Secretary.

The Johnston Glass Company, by J. R. Johnston, Jr., President. (Seal.)

Attest: G. T. Fulton, Secretary.

STATE OF ——,
County of ——, ss:

On the — day of ——, 1929, before me, personally came Amory L. Haskell of Triplex Safety Glass Company of North America, the corporation described in and which executed the foregoing agreement, to me known and who, being by me duly sworn, did depose and say that he resides in Middletown, in the State of New Jersey, that he is President of said Triplex Safety Glass Company of North America, and was personally present at the execution of the said agreement and saw the corporate seal of said Triplex Safety Glass Company of North America duly affixed thereto; that he knew the corporate seal of said corporation; that the seal affixed to said agreement is the corporate seal of said corporation and was so affixed by order of the Board of Directors of said corporation, and he, as President and Starr Cooper as Secretary of said corporation, signed their respective names thereto by like order, and that the said agreement was duly signed, sealed and delivered by and as [fol. 1251] and for the act and deed of said The Triplex Safety Glass Company of North America, for the uses and purposes therein mentioned.

In witness whereof, I have hereunto set my hand and affixed by official seal the day and year aforesaid.

Edna H. Barry, Notary Public for the State of New Jersey. My Commission expires Feb. 21, 1933. (Seal.)

STATE OF INDIANA,
County of Blackford, ss:

On the 20th day of May, 1929, before me, personally came John R. Johnston of The Johnston Glass Company, the corporation described in and which executed the foregoing agreement, to me known, and who, being by me duly sworn, did depose and say that he resides in Hartford City, in the State of Indiana, that he is President of said The Johnston Glass Company, and was personally present at the execution of the said agreement and saw the corporate seal of said The Johnston Glass Company duly affixed thereto; that he knew the corporate seal of said corporation; that the seal affixed to said agreement is the corporate seal of said corporation and was so affixed by order of the

Board of Directors of said corporation, and he, as President and George T. Fulton as Secretary of said corporation, signed their respective names thereto by like order, and that the said agreement was duly signed, sealed and delivered by and as and for the act and deed of said The Johnston Glass Company for the uses and purposes therein mentioned.

In witness whereof, I have hereunto set my hand and affixed my official seal the day and year aforesaid.

(Carrie) B. Andrews, Notary Public. My Comm. Expires 10/29/29. (Seal.)

[fol. 1252] **PLAINTIFF'S EXHIBIT NO. 25-A**

Original Invoice—Pittsburgh Plate Glass Company to Triplex Safety Glass Company

(Not Printed)

PLAINTIFF'S EXHIBIT NO. 25-B

Original Invoice—Pittsburgh Plate Glass Company to Triplex Safety Glass Company

(Not Printed)

PLAINTIFF'S EXHIBIT NO. 25-C

Original Invoice—Pittsburgh Plate Glass Company to Triplex Safety Glass Company

(Not Printed)

PLAINTIFF'S EXHIBIT NO. 26-A. 1253

Pl. Master Ex. 26-4
6/10/36 P.A.
2-27-29 8-3278

DU PONT

DU PONT VISCOLOID COMPANY
INCORPORATED

Pyralin-Viscoloid

NEW YORK

TERMS 2% 10TH MO. N/S
FROM DATE OF INVOICE

SOLD TO TRIPLEX SAFETY GLASS CO OF NORTH AMERICA
ADDRESS WALNUT & PLEASANT STS CLIFTON PLANT PASSAIC NJ
M.O. 26567 CUSTOMER'S ORDER OR DATE 11706

SHIPPED TO
DESTINATION
DATE SHIPPED 2/26/29
SHIPPED FROM ARL

VIA TRUCK F.O.B. DEST SALESMAN MAGINNES BUSINESS G

2/2-3/10

	AMOUNT
201 SHTS 216 LBS 20/ 50" 1557 SS VAPOR	
1 34 SHT NET	263 31
UNTRIMMED	

CASE # 3966

CASE MARKED ORDER # 11706 - VAPORIZED

Part Shipped

NO [illegible]

FH/

Vo 2-120-1929

Acct. No. 56-2
Posted
Rec'd 2/28/29
F.O.B. Clifton
Price O.K. DAB
Ext. O.K.
Approved

Ltr 5/2

PLEASE SEND ALL REMITTANCES FREIGHT BILLS AND OTHER VOUCHERS FOR CREDIT TO DU PONT VISCOLOID CO., INC. TREASURER'S OFFICE, ARLINGTON, NEW JERSEY. INTEREST CHARGED ON ALL BILLS NOT PAID AT MATURITY

1253

992

PLAINTIFF'S EXHIBIT NO. 26-B

PLAINTIFF'S EXHIBIT NO. 26-B

DU PONT VISCOLOID COMPANY

Pyralin-Viscoloid

6-13-29

ARLINGTON Master Ex 26-B 6/10/31 F.B. TERMS 2% 10TH MO. N/8 FROM DATE OF INVOICE

SOLD TO THE TRIPLEX SAFETY GLASS CO OF NORTH AMERICA

ADDRESS WALNUT & PLEASANTS STS CLIFTON PLANT PASSAIC N.J.

SHIPPED TO

DESTINATION

P. O. 29279-K CUSTOMER'S ORDER OR DATE 11894 DATE SHIPPED 6-12-29 SHIPPED FROM ARL

VIA TRUCK F.O.B. DEST SALESMAN JOSLYN BUSINESS G

								AMOUNT
525 SHTS	422 LBS	20/	36"	31610	BB VAPOR	1 08	SHT NET	567 00
1050 SHTS	853 LBS	20/	36"	31610	VAULT VAPOR	1 03	SHT NET	1081 50
								1648 50

BOTH ITEMS UNTRIMMED

CASES # 13882-84 INCL
13903-05 INCL
13921-23 INCL

RECEIPT ACKNOWLEDGMENT IF REQUIRED BY A CHECK

PAY TO THE ORDER

CASES MARKED ORDER # 11894

PW

Paul Shipment

NO RETURN WILL BE ACCEPTED UNLESS AUTHORIZED BY SALES OFFICE

Vo 6-120-1929

Acct. No. 50-2
Posted
Rec'd 6/17
F.C.B. Wks
Price C.K. Bud
E...
Approved

June 137

1254

PLEASE SEND ALL REMITTANCES FREIGHT BILLS AND OTHER VOUCHERS FOR GOODS TO DU PONT VISCOLOID CO., INC. TREASURER'S OFFICE, ARLINGTON, NEW JERSEY. INTEREST CHARGED ON ALL BILLS NOT PAID AT MATURITY

PLAINTIFF'S EXHIBIT NO. 26-C.

DU PONT

DU PONT VISCOLOID COMPANY INCORPORATED NO. S-22661

ARLINGTON 12-17-29 TERMS 2% 10TH MO. E/S FROM DATE OF INVOICE

Pyralin-Viscoloid

SOLD TO TRIPLEX SAFETY GLASS OF NORTH AMERICA

ADDRESS WALNUT & PLEASANT STS CLIFTON N J

SHIPPED TO

DESTINATION

P.O. 45694 CUSTOMER'S ORDER OR DATE 100522 DATE SHIPPED 12-16-29 SHIPPED FROM ARLINGTON

VIA TRUCK F.O.B. DEST SALESMAN W A JOSLYN BUSINESS G

	AMOUNT
25 SHTS 20 LBS 20/ 20X36" 7555 HH 1 10 SHT NET	27 50

Dec
155

THIS SHIPMENT COMPLETES YOUR ORDER

CASE 73272

EF

NO RETURN WILL BE ACCEPTED
UNLESS AUTHORIZED BY SALES OFFICE

V012-109-1924

Acct. No. 50-2

12/16/29
Clifton N.J.
M.L.

Received Dec 1

1255

PLEASE SEND ALL REMITTANCES FREIGHT BILLS AND CORRESPONDENCE TO DU PONT VISCOLOID COMPANY OFFICE AT THE ADDRESS GIVEN ABOVE

994

PLAINTIFF'S EXHIBIT NO. 26-D.

DU PONT

DU PONT VISCOLOID COMPANY INCORPORATED No. V-32762

ARLINGTON 1-31-30

Pyralin-Viscoloid

TERMS 2%10TH MFR'S NET

SOLD TO THE TRIPLEX SAFETY GLASS CO OF NORTH AMERICA INC

ADDRESS WALNUT & PLEASANT STS CLIFTON, N.J.

SHIPPED TO TRIPLEX SAFETY GLASS CO CLIFTON, N.J.

DESTINATION

P.O. NO. V-12578 CUSTOMER'S ORDER NO. OR DATE 15284 1/10 - 2 DATE SHIPPED 1-30-30 SHIPPED FROM LEON

VIA FRT F.O.B. DEST 2 SALESMAN HOUSE DISCOUNT 6

CASE # 6062

AMOUNT

100 SHS 20/ 36X60 7565 "88" 231 LBS 3 85 SH NET VAPORIZED ✓ 385 00

O.K. Erball

THIS COMPLETES YOUR ORDER.

Feb 52

CM

Vol-115-1930

Acct. No. 50-2
Posted .....
Rec'd. 2/5/30
F.O.B. Clifton NJ
Price O.K. MK
Ext. O.K. M.M.
Approved ...

1256

PLEASE SEND ALL REMITTANCES, FREIGHT BILLS AND OTHER VOUCHERS FOR CREDIT TO DU PONT VISCOLOID CO., INC. TREASURER'S OFFICE, ARLINGTON, NEW JERSEY. INTEREST CHARGED ON ALL BILLS NOT PAID AT MATURITY. NO RETURNS WILL BE ACCEPTED UNLESS AUTHORIZED BY OUR SALES OFFICE.

Plaintiff's Exhibit No. 27

PLAINTIFF'S EXHIBIT NO. 27.

Schedule of Sales.

(Not Printed.)

PLAINTIFF'S EXHIBIT NO. 28.

Losses on Triplex Sales Occasioned by Reduced Prices.

SALES TO DISTRIBUTORS	$ 96,291.81
SALES TO MANUFACTURERS	31,431.32

TRIPLEX SAFETY GLASS COMPANY OF N.A. INC.
CLIFTON, NEW JERSEY

SALES TO DISTRIBUTORS

LOSS OCCASIONED BY REDUCED PRICES

	Actual Sales			Established Price		
	Area	Amount	Average Per Sq. Ft.	Per Sq. Ft.	Difference	Total Loss
September 1928						
Sheet - Sealed	2,648	4,780.50	1.8052	2.00	.1948	515.8[illegible]
October 1928						
Plate - Block Size	3,986	13,287.96	3.3329	3.50	.1671	666.2[illegible]
Sheet - Block Size	471	821.62	1.7429	1.75	.0071	3.3[illegible]
November 1928						
Plate - Block Size	3,246	10,512.28	3.2380	3.50	.262	850.6[illegible]

TRIPLEX SAFETY GLASS COMPANY OF N.A. INC.
CLIFTON, NEW JERSEY

SALES TO DISTRIBUTORS

LOSS OCCASIONED BY REDUCED PRICES

	Actual Sales		Average Per Sq.Ft.	Established Price Per Sq. Ft.	Difference	Total Loss
	Area	Amount				
January 1929						
Plate - Block Size	1,487	4,740.93	3.1878	3.50	.3122	464.30
February 1929						
Plate - Block Size	1,458	4,311.69	2.9566	3.50	.5434	792.47
March 1929						
Plate - Block Size	4,363	10,646.86	2.4398	3.50	1.0602	4,626.45
Sheet - Block Size	1,383	1,954.36	1.4130	1.75	.337	466.10
April 1929						
Plate - Sealed	965	3,782.58	3.9198	4.00	.0802	77.44
Plate - Block Size	2,566	6,322.38	2.4639	3.50	1.0361	2,658.66
Sheet - Block Size	2,660	3,607.20	1.3556	1.75	.3944	1,049.49
May 1929						
Plate - Block Size	5,706	11,552.69	2.0246	3.50	1.4754	8,418.87
Sheet - Block Size	3,204	4,538.71	1.4163	1.75	.3337	1,069.40
June 1929						
Plate - Sealed	116	451.65	3.8645	4.00	.1355	15.84
Plate - Block Size	5,080	12,129.88	2.3875	3.50	1.1125	5,652.03
Sheet - Sealed	78	88.34	1.1224	2.00	.8776	68.89
Sheet - Block Size	1,296	1,801.83	1.3902	1.75	.3598	466.33
July 1929						
Plate - Sealed	184	691.73	3.7585	4.00	.2432	44.78
Plate - Block Size	3,371	7,183.63	2.1309	3.50	1.3691	4,615.41
Sheet - Block Size	713	1,015.92	1.4247	1.75	.3253	231.96

TRIPLEX SAFETY GLASS COMPANY OF N.A. INC.
CLIFTON, NEW JERSEY

SALES TO DISTRIBUTORS

LOSS OCCASIONED BY REDUCED PRICES

	Actual Sales			Established Price		
	Area	Amount	Average Per Sq. Ft.	Per Sq. Ft.	Difference	Total Loss
August 1929						
Plate - Sealed	86	327.82	3.8076	4.00	.1924	16.57
Plate - Block Size	3,999	9,058.14	2.2649	3.50	1.2351	4,939.65
Sheet - Sealed	165	282.81	1.7096	2.00	.2904	48.04
Sheet - Block Size	2,199	3,096.09	1.4079	1.75	.3421	752.31
September 1929						
Plate - Sealed	76	226.45	2.9750	4.00	1.0250	78.02
Plate - Block Size	4,209	8,881.00	2.1099	3.50	1.3901	5,851.15
Sheet - Sealed	17	28.69	1.6870	2.00	.313	5.32
Sheet - Block Size	2,232	3,039.37	1.3612	1.75	.3888	868.13
October 1929						
Plate - Block Size	3,974	8,215.16	2.0669	3.50	1.4331	5,696.04
Sheet - Block Size	2,868	4,337.52	1.5122	1.75	.2378	682.11
November 1929						
Plate - Block Size	1,521	3,364.43	2.2106	3.50	1.2894	1,962.38
Sheet - Block Size	1,809	2,480.54	1.3710	1.75	.3790	685.73
December 1929						
Plate - Block Size	1,817	3,641.25	2.0030	3.50	1.4970	2,721.38
Sheet - Block Size	1,344	1,787.98	1.3296	1.75	.4204	565.33

TRIPLEX SAFETY GLASS COMPANY OF N.A. INC.
CLIFTON, NEW JERSEY

SALES TO DISTRIBUTORS

LOSS OCCASIONED BY REDUCED PRICES

	Actual Sales			Established Price Per Sq. Ft.		
	Area	Amount	Average Per Sq. Ft.		Difference	Total Loss
January 1930						
Plate - Block Size	2,833	4,533.70	2.0296	3.50	1.4704	3,284.52
Sheet - Sealed	116	211.08	1.8105	2.00	.1895	22.09
Sheet - Block Size	1,201	1,545.38	1.2860	1.75	.4640	557.59
February 1930						
Plate - Sealed	5	18.18	3.4115	4.00	.5885	3.14
Plate - Block Size	2,047	3,880.65	1.8955	3.50	1.6045	3,284.85
Sheet - Sealed	47	57.39	1.2209	2.00	.7791	36.62
Sheet - Block Size	1,223	1,183.39	.9674	1.75	.7826	957.36
March 1930						
Plate - Sealed	283	615.05	2.0969	4.00	1.9031	558.21
Plate - Block Size	2,030	3,910.39	1.9258	3.50	1.5742	3,196.38
Sheet - Sealed	313	357.69	1.1425	2.00	.8575	268.46
Sheet - Block Size	2,510	2,356.42	.9386	1.75	.8114	2,036.99
April 1930						
Plate - Sealed	505	930.67	1.8479	4.00	2.1521	1,063.90
Plate - Block Size	6,300	11,664.28	1.8514	3.50	1.6486	10,386.43
Sheet - Sealed	428	519.71	1.2123	2.00	.7877	337.69
Sheet - Block Size	3,669	3,365.09	.9171	1.75	.8329	3,056.09
May 1930						
Plate - Sealed	328	771.39	2.3511	4.00	1.6489	541.00
Plate - Block Size	5,089	9,352.72	1.8376	3.50	1.6624	8,461.06
Sheet - Sealed	154	265.25	1.7165	2.00	.2835	43.81
Sheet - Block Size	741	748.98	1.0098	1.75	.7402	549.03
						96,291.81

SALES TO AUTOMOBILE AND BODY MANUFACTURERS FOR SPANISH [illegible]

Shipped To	Class	Quality	Area Sold	Rate Per Square Foot	Triplex Established Price	Difference	Total Loss
July 1928							
Sundry Mfgrs.	O	Plate	30	4.7548	4.80	.0452	1.36
August 1928							
Motor Products Co.	O	"	30	4.7837	4.80	.0163	.49
September 1928							
Gardner Motor Co.	O	"	11	4.0033	4.80	.7967	8.76
Sundry	O	"	240	4.5121	4.80	.2879	69.10
October 1928							
Fleetwood Body Corp.	S	"	7,410	2.5499	2.65	.1101	815.84
November 1928							
Stutz Motor Car Co.	O	Plate	130	3.9749	4.80	.8251	107.26
Sundry	O	"	34	3.5406	4.80	1.2594	42.82
Cadillac	O	Sheet	36	1.5869	2.40	.8131	29.27
December 1928							
Stutz Motor Car Co.	S	Plate	1,439	2.7904	3.14	.3496	503.07
Studebaker Sales Co.	O	"	5	3.8638	4.80	.9362	4.68
Stutz Motor Car Co.	S	Sheet	5,461	1.7631	1.80	.0369	201.51
Sundry	O	"	36	2.1550	2.40	.2450	8.82
January 1929							
Stutz Motor Car Co.	S	Plate	2,834	2.8755	3.14	.2645	749.59
" " " "	S	Sheet	6,356	1.7619	1.80	.0381	242.24
Motor Products Co.	O	Plate	216	4.7154	4.80	.0846	18.27
February 1929							
Stutz Motor Car Co.	S	Sheet	16,885	1.7808	1.80	.0192	324.19
Sundry	O	Plate	147	4.4108	4.80	.3892	57.21
March 1929							
Stutz Motor Car Co.	S	Plate	5,547	2.9669	3.14	.1731	960.19

Shipped to	Class	Quality	Area Sold	Rate Per Square Foot	Triplex Established Price	Difference	Total Loss
April 1929							
Durant Motors	6	Plate	29	2.997	4.80	1.8030	52.29
May 1929							
Stutz Motor Car Co.	S	Plate	2,379	3.0919	3.14	.0481	114.45
Motor Products Co.	0	"	39	3.5031	4.80	1.2969	50.58
June 1929							
Stutz Motor Car Co.	S	Plate	1,878	2.2494	3.14	.8906	1,672.55
Dietrich	0	"	23	3.3000	4.80	1.5000	34.50
July 1929							
Stutz Motor Car Co.	S	"	3,997	2.8570	3.14	.8630	3,529.35
Chrysler	0	"	9	3.3000	4.80	1.5000	13.50
Auburn	0	"	77	2.25	4.80	2.5500	196.35
August 1929							
Stutz Motor Car Co.	S	"	2,230	2.2594	3.14	.3806	1,963.74
Chrysler	0	"	27	3.60	4.80	1.2000	32.40
September 1929							
Stutz Motor Car Co.	S	"	365	2.2724	3.14	.8676	332.29
Chrysler	0	"	18	3.60	4.80	1.2000	21.60
Franklin	0	"	28	3.30	4.80	1.5000	42.00
Weyman American Body Co.	0	"	4	3.60	4.80	1.2000	4.80
October 1929							
Stutz Motor Car Co.	S	"	421	2.3516	3.14	.7884	331.92
Fisher Body Co.	0	"	164	3.30	4.80	1.50	246.00
Marmon	0	"	205	1.80	4.80	3.00	615.00
Weyman American Body Co.	0	"	4	3.60	4.80	1.20	4.80
Brunn	0	"	130	3.30	4.80	1.50	195.00
Sundry	0	"	23	3.30	4.80	1.50	34.50
November 1929							
Marmon	0	Plate	69	1.8922	4.80	2.9078	200.64
Pierce Arrow	0	"	7	3.2992	4.80	1.5008	10.51
Le Baron - Detroit	0	"	5	3.7492	4.80	1.0508	5.25
J. B. Judkins	0	"	25	3.3003	4.80	1.4997	37.49
N. Y. N. H. & H. R. R.	0	Sheet	684	1.50	2.40	.90	615.60

1263

1001

1001

1264

1002

Shipped To	Glass	Quality	Area Sold	Rate Per Square Foot	Triplex Established Price	Difference	Total Loss
December 1929							
Fisher Body Co.	0	Plate	9	3.30	4.80	1.50	13.50
N. Y. N. H. & H. R. R.	0	Sheet	9	1.50	2.40	.90	8.10
January 1930							
Fisher Body Co.	0	Plate	280	3.30	4.80	1.50	420.00
Chrysler	0	"	45	3.30	4.80	1.50	67.50
Dietrich	0	"	8	3.30	4.80	1.50	12.00
Locke	0	"	2	3.30	4.80	1.50	3.00
Pullman Car Co.	0	"	4	1.75	4.80	3.05	12.20
February 1930							
Fisher Body Co.	0	Plate	7	3.8775	4.80	1.9225	13.45
N. Y. N. H. & H. R. R. Co.	0	Sheet	41	1.10	2.40	1.30	53.30
March 1930							
Fisher Body Co.	0	Plate	113	3.1510	4.80	1.6490	186.34
Duesenberg Inc.	0	"	285	1.6762	4.80	3.1238	890.28
Baltimore Coach Co.	0	"	6	1.75	4.80	3.05	18.30
N. Y. N. H. & H. R. R.	0	"	86	1.75	4.80	3.05	262.30
Weyman American Body Co.	0	"	147	1.50	4.80	3.30	485.10
Sundry	0	"	8	3.83	4.80	.97	7.76
United Railways & Elec. Co.	0	Sheet	116	1.85	2.40	1.15	133.40
Baltimore Coach Co.	0	"	4	1.25	2.40	1.15	4.60
N. Y. N. H. & H. R. R. Co.	0	"	58	1.05	2.40	1.35	78.30
Sundry	0	"	132	1.4649	2.40	.9351	123.45
April 1930							
Public Service Transp. Co.	0	Plate	7	1.80	4.80	3.00	21.00
Weyman American Body Co.	0	"	746	1.50	4.80	3.30	2,461.80
N. Y. N. H. & H. R. R.	0	"	117	1.75	4.80	3.05	356.85
Pullman Car Co.	0	"	340	1.75	4.80	3.05	1,037.00
Franklin	0	"	14	2.80	4.80	2.00	28.40
Great Lakes Aircraft Co.	0	"	687	1.8704	4.80	2.9296	2,012.64
Illinois Central R.R. Co.	0	"	21	1.85	4.80	2.95	61.95
Public Service Transp. Co.	0	Sheet	99	1.40	2.40	1.00	99.00
Sundry	0	"	166	1.50	2.40	.90	151.20
May 1930							
Public Service Transp. Co.	0	Plate	2,494	1.7821	4.80	3.0179	7,526.54
Duesenberg Motors Inc.	0	"	50	1.6868	4.80	3.1132	155.66
Illinois Central R.R.	0	"	50	1.75	4.80	3.05	152.50
Fifth Avenue Coach Co.	0	"	21	1.75	4.80	3.05	64.05
							$1,451.22

PLAINTIFF'S EXHIBIT NO. 29.

Supplemental Bill of Complaint.

(Not Printed.)

PLAINTIFF'S EXHIBIT NO. 29-A.

Answer to Supplemental Bill of Complaint.

(Not Printed.)

PLAINTIFF'S EXHIBIT NO. 29-B.

Order as to Supplemental Bill of Complaint.

(Not Printed.)

PLAINTIFF'S EXHIBIT NO. 29-C.

Interlocutory Decree on Supplemental Bill of Complaint.

(Not Printed.)

POLISHED PLATE CUTTING LOSS, ANALYSIS by CUSTOMERS ORDERS, CALCULATED from SEVERAL ORDERS for period 1928, 1929 and 1930.

	Customer	Order No.	Warehouse	Date of order	Final shipping date	Material Quantity	Duplate ordered Description	Duplate ordered Pattern No.	Plates shipped quantity	Size shipped to customer
1B	Studebaker Corp.	E 229	Chicago	3/27/29	6/18/29	3 000	Windshield	S- 1	3 000	13-3/8 x 41-11/16
2B	Motor Products Corp.	D 244	Detroit	4/ 3/29	7/ 2/29	8 802	do	A-6-3798	3 899	12-13/32 x 41
3B	Studebaker Corp.	E 170	Chicago	12/13/28	2/10/29	10 000	do	246294	10 000	13-3/8 x 41-11/16
4B		E 216	do	3/11/29	6/10/29	5 000	do	246294	5 000	13-3/8 x 41-11/16
5B	Fisher Body Corp.	N/S 468	General office	8/ 7/29	9/ 4/29	3 000	Front door	13786	3 000	16-3/4 x 24-1/2
6B		N/S 458	do	8/ 7/29	9/16/29	3 500	Front door	13783	3 550	16-23/32 x 30-3/8
7B	Motor Products Corp.	D 239	Detroit	3/29/29	4/17/29	5 000	Windshield	A6-3798	5 000	12-13/32 x 41
8B	Fisher Body Corp.	GO 1964	General office	7/ 5/28	8/31/28	4 250	Front door	A-13783	4 250	16-23/32 x 30-3/8
9B		GO 1965	do	7/ 5/28	8/28/28	3 350	Rear door	A-13786	3 350	16-3/4 x 24-1/2
10B		GO 2310	do	8/14/28	9/25/28	4 400	do	A-13786	4 400	16-3/4 x 24-1/2
11B		GO 2314	do	8/14/28	10/ 3/28	4 400	Front door	A-13946	4 400	17-7/32 x 31-3/8
12B		GO 2317	do	8/14/28	9/26/28	4 700	do	A-13783	4 700	16-23/32 x 30-3/8
13B		GO 2326	do	8/14/28	9/25/28	3 900	Rear door	A-13949	3 900	17-5/16 x 23-7/32
14B	Motor Products Corp.	D 18	Detroit	1/21/30	1/28/30	3 200	Windshield	A6-4090	3 200	12-31/64 x 42-3/8
15B		D 14	do	1/10/30	1/28/30	3 500	do	A6-4090	3 500	12-31/64 x 42-3/8
16B	Ainsworth Mfg. Corp.	D 12	do	1/10/30	3/ 7/30	Blanket	do	G- 353	1 700	11-7/8 x 43-3/8
17B		D 11	do	1/10/30	3/15/30	do	do	G- 352	391	11-7/16 x 42-57/64
18B	Seaman Body Corp.	N/S 498	General office	8/10/29	10/8/29	3 500	Rear quarter	37735	3 500	15 x 19-15/16
19B	Studebaker Corp.	E 153	Chicago	10/23/28	1/16/29	5 000	Windshield	249430	5 000	13-3/8 x 42-15/16
20B	Fisher Body Corp.	GO 2942	General office	10/5/28	11/ 6/28	4 500	Back part	A-7011	4 500	9-1/2 x 30-7/8
21B		GO 2624	do	9/10/28	10/22/28	3 500	do	A-7011	3 500	9-1/2 x 30-7/8
22B	Seaman Body Corp.	N/S 497	do	8/10/29	10/12/29	2 300	Rear window	37731	2 300	10-53/64 x 30
23B		N/S 507	do	8/10/29	10/19/29	2 300	Windshield	38095	2 300	12 x 44-3/4
24B	Fisher Body Corp.	N/S 530	do	8/17/29	9/25/29	1 300	do	28230	1 300	16-3/4 x 25-3/8
25B	Studebaker Corp.	E 265	Chicago	7/12/29	1/31/30	4 000	do	246294	4 000	13-3/8 x 41-11/16
26B		E 270	do	7/13/29	1/31/30	5 500	do	242371	5 500	11-9/16 x 29-15/32
27B		E 276	do	7/13/29	1/22/30	3 600	do	242364	3 600	15-3/4 x 29-1/2

† In Red in Original Exhibit.

SEVERAL ORDERS for period 1928, 1929 and 1930.

Ordered Pattern No.	Plates shipped quantity	Size shipped to customer	Bracket size billed to customer	Sq.ft. area per plate	Quantity pol. plate glass used Plates	Actual size pol.plate taken from stock	Bracket size pol.plate billed Duplate	Sq. ft. area per plate actually used	Plate glass footage actually used	Cutting loss per Plate	Cutting loss Total
S- 1	3 000	13-3/8 x 41-11/16	14 x 42	4.0833	2 500	14 x 43	14 x 44	4.1806	10 452	.0973	243
					3 300	14 x 44	14 x 44	4.2778	14 117	.1945	641
A-6-3798	3 899	12-13/32 x 41	14 x 42	4.0833	10 796	13 x 42	14 x 42	3.7917	40 935	.2918†	3 148†
246294	10 000	13-3/8 x 41-11/16	14 x 42	4.0833	3 450	14 x 44	14 x 44	4.2778	14 758	.1945	671
					20 960	14 x 43	14 x 44	4.1806	87 625	.0973	2 039
246294	5 000	13-3/8 x 41-11/16	14 x 42	4.0833	1 992	14 x 44	14 x 44	4.2778	8 521	.1945	387
					16 800	14 x 43	14 x 44	4.1806	70 236	.0973	1 635
13786	3 000	16-3/4 x 24-1/2	18 x 26	3.25	112	17 x 25-1/2	18 x 26	3.0104	337	.2396†	27†
					4 600	17-1/4 x 25	18 x 26	2.9948	13 776	.2552†	1 174†
					500	17-1/2 x 25	18 x 26	3.0382	1 519	.2118†	106†
					122	17-1/2 x 25-1/2	18 x 26	3.0989	378	.1511†	18†
13783	3 550	16-23/32 x 30-3/8	18 x 32	4.0	68	17-1/2 x 31	18 x 32	3.7673	256	.2327†	16†
					7 600	17-1/4 x 31	18 x 32	3.7135	28 223	.2865†	2 177†
A6-3798	5 000	12-13/32 x 41	14 x 42	4.0833	8 000	13 x 42	14 x 42	3.7917	30 334	.2916†	2 333†
A-13783	4 250	16-23/32 x 30-3/8	18 x 32	4.	18 014	18 x 32	18 x 32	4.0	72 056	-	-
A-13786	3 350	16-3/4 x 24-1/2	18 x 26	3.25	12 151	18 x 26	18 x 26	3.25	39 491	-	-
A-13786	4 400	16-3/4 x 24-1/2	18 x 26	3.25	18 851	18 x 26	18 x 26	3.25	61 266	-	-
A-13946	4 400	17-7/32 x 31-3/8	18 x 32	4.0	21 303	18 x 32	18 x 32	4.0	85 212	-	-
A-13783	4 700	16-23/32 x 30-3/8	18 x 32	4.0	22 597	18 x 32	18 x 32	4.0	90 388	-	-
A-13949	3 900	17-5/16 x 23-7/32	18 x 24	3.0	22 440	18 x 24	18 x 24	3.0	67 320	-	-
A6-4090	3 200	12-31/64 x 42-3/8	14 x 44	4.2778	7 600	14 x 44	14 x 44	4.2778	32 511	-	-
A6-4090	3 500	12-31/64 x 42-3/8	14 x 44	4.2778	7 000	14 x 44	14 x 44	4.2778	29 945	-	-
G- 353	1 700	11-7/8 x 43-3/8	12 x 44	3.6667	200	12 x 44	12 x 44	3.6667	734	-	-
					2 864	14 x 44	14 x 44	4.2778	12 252	.6111	1 750
					474	14 x 46	14 x 46	4.4722	2 120	.8055	382
G- 352	391	11-7/16 x 42-57/64	12 x 44	3.6667	712	12 x 44	12 x 44	3.6667	2 611	-	-
37735	3 500	15 x 19-15/16	16 x 20	2.2222	4 400	16 x 21	16 x 22	2.3333	10 267	.1111	489
249430	5 000	13-3/8 x 42-15/16	14 x 44	4.2778	12 570	14 x 44	14 x 44	4.2778	53 772	-	-
A-7011	4 500	9-1/2 x 30-7/8	10 x 32	2.2222	6 800	11 x 32	12 x 32	2.4444	16 622	.2222	1 511
A-7011	3 500	9-1/2 x 30-7/8	10 x 32	2.2222	2 211	11 x 32	12 x 32	2.4444	5 405	.2222	491
37731	2 300	10-53/64 x 30	12 x 30	2.5	800	12 x 31	12 x 32	2.5833	2 067	.0833	67
					1 700	I2 x 32	12 x 32	2.6667	4 533	.1667	283
38095	2 300	12 x 44-3/4	12 x 46	3.8333	3 200	13 x 46	14 x 46	4.1528	13 289	.3195	1 022
28230	1 300	16-3/4 x 25-3/8	18 x 26	3.25			No tickets			-	-
246294	4 000	13-3/8 x 41-11/16	14 x 42	4.0833	1 700	14 x 43	14 x 44	4.1806	7 107	.0973	165
					6 332	14 x 44	14 x 44	4.2778	27 087	.1945	1 231
242371	5 500	11-9/16 x 29-15/32	12 x 30	2.5	1 950	13 x 31	14 x 32	2.7986	5 457	.2986	582
					5 300	14 x 32	14 x 32	3.1111	16 489	.6111	3 239
242364	3 600	15-3/4 x 29-1/2	16 x 30	3.3333	2 132	16 x 30	16 x 30	3.3333	7 107	-	-

POLISHED PLATE CUTTING LOSS, ANALYSIS by CUSTOMERS ORDERS, CALCULATED from SEVERAL ORDERS for period 1928, 1929 and 1930.

	Customer	Order No.	Warehouse	Date of order	Final shipping date	Material quantity	Duplate ordered Description	Pattern No.	Plates shipped quantity	Size shipped to customer
27B	Studebaker Corporation									
28B	Motor Products Corp.	D 493	Detroit	12/31/29	1/9/30	2 500	Windshield	A6-4090	2 500	12-31/64 x 42-3/8
29B	Fisher Body Corp.	N/S 532	General office	8/17/29	9/21/29	1 000		28227	1 000	16-11/16 x 33
30B	Seaman Body Corp.	N/S 650	do	9/13/29	1/ 9/30	7 400		37733	7 400	15-1/16 x 23-1/4
2A	Fisher Body Co.	1976	do	7/ 5/28	8/23/28	750	Rear quarter	A-13955	750	14-5/8 x 17-9/32
1A		1601	do	5/23/28	8/17/28	1 050	do	A-13952	1 050	17-9/32 x 21-5/8
3A		1974	do	7/ 5/28	8/28/28	3 550	Rear doors	A-13949	3 550	17-5/16 x 23-7/32
4A		1968	do	7/ 5/28	8/25/28	1 600	Rear quarters	A-14406	1 600	16-5/8 x 19-3/8
5A		1977	do	7/ 5/28	8/25/28	400	do	A-14118	400	17-9/32 x 19-1/32
6A		1973	do	7/ 5/28	9/ 6/28	4 050	Front doors	A-13946	4 050	17-7/32 x 31-3/8
7A	Pierce Arrow	520	Buffalo	12/5/28	5/27/29	600	Division	725867	600	18-3/8 x 51-17/32
8A	Studebaker	E 155	Chicago	10/23/28	1/10/29	8 000	Windshields	246294	8 000	13-3/8 x 41-11/16
9A	Fisher Body Co.	1971	General office	7/ 5/28	8/25/28	500	Front doors	96925	500	16-1/2 x 27-3/4
10A		2966	do	10/ 5/28	1/ 6/29	1 000	do	96925	1 000	do
11A	Motor Products Corp.	D 110	Detroit	12/21/28	1/21/29	10 000	Windshields	A6-3798	10 000	12-13/32 x 41
12A		D 160	do	2/ 8/29	2/25/29	3 500	do	A6-3798	3 500	12-13/32 x 41
13A	Ainsworth Mfg. Corp.	D 361	do	8/ 1/29	8/23/29	500	do	G-342	585	11-21/32 x 44-1/8
14A	Motor Products Corp.	D 364	do	8/ 7/29	8/26/29	4 200	do	A6-3798	4 200	12-13/32 x 41
15A	Studebaker Corp.	E 231	Chicago	4/ 8/29	6/25/29	1 000	do	246294	1 000	13-3/8 x 41-11/16
16A	Joseph N. Smith & Co.	D 289	Detroit	5/10/29	5/31/29	775	do	6120-1	775	12-1/16 x 42-5/16
17A	Ainsworth Mfg. Corp.	D 479	do	12/ 6/29	12/12/29	500	do	G-353	500	11-7/8 x 43-3/8
18A	Fisher Body Corp.	N/S 482	General office	8/ 8/29	8/27/29	600	Rear door	A-28230	600	16-3/4 x 25-3/8
19A	Ainsworth Mfg. Corp.	D 490	Detroit	12/23/29	12/28/29	600	Windshield	G-353	600	11-7/8 x 43-3/8
20A	Fisher Body Corp.	N/S 534	General office	8/10/29	9/21/29	750	Rear quarter	28234	750	16-13/32 x 23-3/8

(In Ran on Original Exhibit

...S for period 1928, 1929 and 1930.

...d... No.	Plates shipped quantity	Size shipped to customer	Bracket size billed to customer	Sq.ft. area per plate	Quantity pol. plate glass used Plates	Actual size pol.plate taken from stock	Bracket size pol.plate billed Duplate	Sq. ft. area per plate actually used	Plate glass footage actually used	Cutting loss per Plate	Cutting loss Total
					1 800	17 x 30	18 x 30	3.5417	6 375	.2084	375
					240	17 x 31	18 x 32	3.6597	878	.3264	78
					180	18 x 30	18 x 30	3.75	675	.4167	75
					1 280	18 x 32	18 x 32	4.0	5 120	.6667	853
...90	2 500	12-31/64 x 42-3/8	14 x 44	4.2778	3 500	14 x 44	14 x 44	4.2778	14 972	-	-
...87	1 000	16-11/16 x 33	18 x 34	4.25	150	17-1/4 x 34	18 x 34	4.0729	611	.1771†	26†
...33	7 400	15-1/16 x 23-1/4	16 x 24	2.6667	3 100	16 x 24	16 x 24	2.6667	8 267	-	-
					12300	15-3/4 x 24	16 x 24	2.625	32 287	.0417†	513†
...55	750	14-5/8 x 17-9/32	16 x 18	2.0	2 040	16 x 18	16 x 18	2.0	4 080	-	-
...52	1 050	17-9/32 x 21-5/8	18 x 22	2.750	1 419	18 x 22	18 x 22	2.750	3 902	-	-
					1 921	18 x 22-1/2	18 x 24	2.8125	5.403	.0625	120
...49	3 550	17-5/16 x 23-7/32	18 x 24	3.0	14 635	18 x 24	18 x 24	3.0	43 905	-	-
					326	18 x 32	18 x 32	4.0	1 304	1.0	326
...06	1 600	16-5/8 x 19-3/8	18 x 20	2.5	6 959	18 x 20	18 x 20	2.5	17 397	-	-
...18	400	17-9/32 x 19-1/32	18 x 20	2.5	1 784	18 x 20	18 x 20	2.5	4 460	-	-
...46	4 050	17-7/32 x 31-3/8	18 x 32	4.0	15 955	18 x 32	18 x 32	4.0	63 820	-	-
...67	600	18-3/8 x 51-17/32	20 x 52	7.2222	1 509	20 x 53	20 x 5-	7.3611	11 108	.1389	210
...94	8 000	13-3/8 x 41-11/16	14 x 42	4.0833	22 380	14 x 43	14 x 44	4.1806	93 562	.0973	2 178
					107	14 x 44	14 x 44	4.2778	458	.1945	21
...25	500	16-1/2 x 27-3/4	18 x 28	3.5	2 104	17 x 28-1/2	18 x 30	3.3646	7 079	.1354†	285†
					556	18 x 28-1/2	18 x 30	3.5625	1.981	.0625	35
...25	1 000	do	18 x 28	3.5	2 876	17 x 28-1/2	18 x 30	3.3646	9 677	.1354†	389†
...98	10 000	12-13/32 x 41	14 x 42	4.0833	28 663	13 x 42	14 x 42	3.7917	108 681	.2916†	8 358†
					368	13 x 45	14 x 46	4.0625	1 495	.0208†	8†
...98	3 500	12-13/32 x 41	14 x 42	4.0833	8 418	13 x 42	14 x 42	3.7917	31 919	.2916†	2 455†
...42	585	11-21/32 x 44-1/8	12 x 46	3.8333	92	12 x 46	12 x 46	3.8333	353	-	-
					1 050	12-1/2 x 46	14 x 46	3.9931	4 193	.1598	168
					50	13 x 45	14 x 46	4.0625	203	.2292	11
...98	4 200	12-13/32 x 41	14 x 42	4.0833	8 350	13 x 42	14 x 42	3.7917	31 661	.2916†	2 435†
...94	1 000	13-3/8 x 41-11/16	14 x 42	4.0833	2 000	14 x 43	14 x 44	4.1806	8 361	.0973	195
...41	775	12-1/16 x 42-5/16	14 x 44	4.2778	1 550	13 x 43	14 x 44	3.8819	6 017	.3959†	614†
...53	500	11-7/8 x 43-3/8	12 x 44	3.6667	1 000	14 x 44	14 x 44	4.2778	4 278	.6111	611
...30	600	16-3/4 x 25-3/8	18 x 26	3.25	1 200	17-1/4 x 26	18 x 26	3.1145	3 737	.1355†	163†
...53	600	11-7/8 x 43-3/8	12 x 44	3.6667	1 200	14 x 44	14 x 44	4.2778	5 133	.6111	733
...34	750	16-13/32 x 23-3/8	18 x 24	3.	500	17 x 24	18 x 24	2.8333	1 417	.1667†	83†
					370	17-1/4 x 26	18 x 26	3.1145	1 152	.1145	42
					1 000	18 x 24	18 x 24	3.0	3 000	-	-
											1267

POLISHED PLATE CUTTING LOSS, ANALYSIS by CUSTOMERS ORDERS, CALCULATED from SEVERAL ORDERS for period 1928, 1929 and 1930.

	Customer	Order No.	Warehouse	Date of order	Final shipping date	Material quantity	Duplate ordered Description	Duplate ordered Pattern No.	Plates shipped quantity	Size shipped to customer
21A	Studebaker Corp.	E 266	Chicago	7/12/29	10/14/29	1 000	Windshield	244430	1 000	13-3/8 x 42-15/16
22A	Motor Products Corp.	D 403	Detroit	10/ 2/29	10/22/29	3 555	do	A6-3798	3,555	12-13/32 x 41
23A	Ainsworth Mfg. Corp.	D 9	do	1/9/30	1/15/30	500	do	G -352	500	11-7/16 x 42-57/64
24A	Motor Products Corp.	D 5	do	1/6/30	1/17/30	700	do	A6-4090	700	12-31/64 x 42-3/8
25A	Ainsworth Mfg. Corp.	D 10	do	1/9/30	1/15/30	1 000		G-353-19	1 000	11-7/8 x 43-3/8
31B	Studebaker Corp.	E 273	Chicago	7/13/29	1/22/30	9 100		242365	9 100	15-23/32 x 25-1/2
32B	Amesburg Brass & Fdry.Co.	GO 3171	General office	10/23/28	12/22/28	2 025	do	6563	2 025	11-3/4 x 42-7/8
33B	Seaman Body Corp.	N/S 504	do	8/10/29	10/12/29	3 500		37732	3 500	14-7/8 x 25-9/16
51B	Studebaker Corp.	E 364	Chicago	4/ 7/30	-	3 500	do	251168	3 500	12-53/64 x 43-13/32
52B	Motor Products Corp.	D 340	Detroit	7/ 6/29	8/16/29	4 000	do	A6-3798	4 000	12-13/32 x 41
53B	Seaman Body Corp.	N/S 654	Milwaukee	9/13/29	1/24/30	3 950	do	38095	3 950	12 x 44-3/4
54B	Seaman Body Corp.	N/S 648	do	9/13/29	12/ 6/29	3 900		37731	3 902	10-53/64 x 30
55B	Fisher Body Corp.	GO 2201	Detroit	8/ 3/28	8/28/28	3 000	Back light	A-7011	3 000	9-1/2 x 30-7/8
56B	Fisher Body Corp.	GO 2325	do	8/14/28	9/ 4/28	1 000	Rear quarters	A-13955	1 000	14-5/8 x 17-9/32
57B	Fisher Body Corp.	GO 2323	do	8/14/28	9/30/28	2 300	Windshields	A-13706	2 300	15-1/8 x 45-17/32
58B	Fisher Body Corp.	GO 2315	do	8/14/28	9/30/28	2 500	Rear quarters	A-14106	2 500	16-5/8 x 19-3/8
59B	Motor Products Corp.	D 38	do	2/ 7/30	3/13/30	5 300		A6-4090	5 300	12-31/64 x 42-3/8
60B	Pierce Arrow Motor Car Co.	48	Buffalo	1/21/30	5/10/30	2 960	Front door	124558	2 959	16-1/4 x 31-23/32
61B		51	do	1/21/30	5/10/30	3 250	Rear door	124559	3 250	16-15/32 x 24-5/32
62B	Motor Products Corp.	D 56	Detroit	3/ 7/30	4/30/30	5 000		A6-4090	5 000	12-31/64 x 42-3/8
63B	Fisher Body Corp.	S 472	do	8/ 7/29	9/21/29	2 300	do	19864	2 300	16-9/16 x 25-3/8

†In Ran on Original Exhibit.

RAL ORDERS for period 1928, 1929 and 1930.

ce ordered Pattern No.	Plates shipped quantity	Size shipped to customer	Bracket size billed to customer	Sq.ft. area per plate	Quantity pol. plate glass used Plates	Actual size pol.plate taken from stock	Bracket size pol.plate billed Duplate	Sq. ft. area per plate actually used	Plate glass footage actually used	Cutting loss per Plate	Cutting loss Total
244430	1 000	13-3/8 x 42-15/16	14 x 44	4.2778	4 420	14 x 44	14 x 44	4.2778	18 908	-	-
					1 560	14 x 43-1/2	14 x 44	4.2291	6 597	.0487†	76†
A6-3798	3 555	12-13/32 x 41	14 x 42	4.0833	7 100	13 x 42	14 x 42	3.7917	26 921	.2916†	2 070†
G-352	500	11-7/16 x 42-57/64	12 x 44	3.6667	1 000	14 x 44	14 x 44	4.2778	4 278	.6111	611
A6-4090	700	12-31/64 x 42-3/8	14 x 44	4.2778	1 800	14 x 44	14 x 44	4.2778	7 700	-	-
G-353-19	1 000	11-7/8 x 43-3/8	12 x 44	3.6667	2 000	14 x 44	14 x 44	4.2778	8 556	.6111	1 222
242365	9 100	15-23/32 x 25-1/2	16 x 26	2.8889	7 060	16 x 26	16 x 26	2.8889	20 396	-	-
					6 492	16 x 26-1/2	16 x 28	2.9444	19 115	.0555	360
					500	17 x 26	18 x26	3.0694	1 535	.1805	90
					3 158	18 x 28	18 x 28	3.5	11 053	.6111	1 930
					800	16-1/2 x 26	18 x 26	2.9792	2 383	.0903	72
					600	16-1/4 x 26	18 x 26	2.9340	1 760	.0451	27
6563	2 025	11-3/4 x 42-7/8	12 x 44	3.6667	3 264	12 x 44	12 x 44	3.6667	11 968	-	-
					136	13 x 44	14 x 44	3.9722	540	.3055	42
37732	3 500	14-7/8 x 25-9/16	16 x 26	2.8889	2 900	16 x 26-1/2	16 x 28	2.9444	8 539	.0555	161
251168	3 500	12-53/64 x 43-13/32	14 x 44	4.2778	3 575	14 x 44	14 x 44	4.2778	15 293	-	-
A6-3798	4 000	12-13/32 x 41	14 x 42	4.0833	700	13 x 42	14 x 42	3.7917	2 654	.2916†	204†
38095	3 950	12 x 44-3/4	12 x 46	3.8333	5 050	12-3/4 x 45-1/2	14 x 46	4.0175	20 288	.1842	930
					2 750	13 x 46	14 x 46	4.1528	11 420	.3195	879
					176	14 x 46	14 x 46	4.4722	787	.6389	112
37731	3 902	10-53/64 x 30	12 x 30	2.5	3 430	12 x 31	12 x 32	2.5833	8 861	.0833	286
					3 196	12 x 32	12 x 32	2.6667	8 523	.1667	533
A-7011	3 000	9-1/2 x 30-7/8	10 x 32	2.2222	3 772	11 x 32	12 x 32	2.4444	9 220	.2222	838
re A-13955	1 000	14-5/8 x 17-9/32	16 x 18	2.	1 849	16 x 18	16 x 18	2.	3 698	-	-
A-13706	2 300	15-1/8 x 45-17/32	16 x 46	5.1111	8 666	16 x 46	16 x 46	5.1111	44 293	-	-
re A-14106	2 500	16-5/8 x 19-3/8	18 x 20	2.5	10 915	18 x 20	18 x 20	2.5	27 287	-	-
A6-4090	5 300	12-31/64 x 42-3/8	14 x 44	4.2778	5 542	14 x 44	14 x 44	4.2778	23 708	-	-
124558	2 959	16-1/4 x 31-23/32	18 x 32	4.	2 778	18 x 34	18 x 34	4.25	11 806	.25	694
					2 120	18 x 32	18 x 32	4.	8 480	-	-
124559	3 250	16-15/32 x 24-5/32	18 x 26	3.25	4 412	18 x 26	18 x 26	3.25	14 339	-	-
A6-4090	5 000	12-31/64 x 42-3/8	14 x 44	4.2778	2 350	14 x 44	14 x 44	4.2778	10 053	-	-
19864	2 300	16-9/16 x 25-3/8	18 x 26	3.25	2 900	17-1/4 x 26	18 x 26	3.1146	9 032	.1354†	393†
											1268

POLISHED PLATE CUTTING LOSS, ANALYSIS by CUSTOMERS ORDERS, CALCULATED from SEVERAL ORDERS for period 1928, 1929 and 193

	Customer	Order No.	Warehouse	Date of order	Final shipping date	Material quantity	Duplate ordered Description	Pattern No.	Plates shipped quantity	Size shipped customer
4B	Fisher Body Corp.	S-471	Detroit	8/ 7/29	9/21/29	1 800	Back light	16939	1 800	9-1/2 x 30-
5B		S-467	do	8/ 7/29	10/ 8/29	1 700	Windshield	18723	1 700	14-1/4 x 45-
6B		S-463	do	8/ 7/29	9/16/29	1 500	do	19045	1 500	15-3/16 x 4
7B	Seaman Body Corp.	S-652	General office	9/13/29	2/27/30	6 000		37735	6 000	15 x 19-15/
8B		S-649	do	9/13/29	2/26/30	6 000		37732	6 000	14-7/8 x 25
4B	Pierce Arrow Motor Car Co.	530	Buffalo	9/ 3/29	5/10/30	3 423	Front door	124557	3 423	16-3/16 x 2
5B		529	do	9/ 3/29	1/15/30	3 500	Rear door	124559	3 553	16-15/32 x 2
6B		528	do	9/ 3/29	2/15/30	2 500	Back light	125097	2 500	11-3/16 x 2
7B		527	do	8/30/29	5/10/30	3 263	Rear quarter	125157	3 063	16-3/16 x 2
8B	Studebaker Corp.	E-305	Chicago	11/20/29	3/13/30	1 950	do	242369	1 950	15-3/4 x 17-
9B		E-300	do	11/20/29	3/13/30	1 300	Front door	242364	1 300	15-3/4 x 2
0B	Seaman Body Corp.	N/S- 30	General office	1/ 9/30	2/26/30	1 378		37731	1 378	10-53/64 x
1B		N/S- 32	do	1/ 9/30	3/21/30	1 623		37734	1 623	14-7/8 x 3
2B		N/S- 38	do	1/ 9/30	2/26/30	1 392	Windshield	38095	1 392	12 x 44-3/4
3B		N/S- 31	do	1/ 9/30	3/15/30	2 070		37733	2 070	15-1/16 x 2
4B	Studebaker Corp.	E-284	Chicago	8/26/29	2/ 4/30	1 000	do	244430	1 000	13-3/8 x 42-

† In Red on Original Exhibit.

ERS for period 1928, 1929 and 1930.

ered tiem No.	Plates shipped quantity	Size shipped to customer	Bracket size billed to customer	Sq.ft. area per plate	Quantity pol. plate glass used Plates	Actual size pol.plate taken from stock	Bracket size pol.plate billed Duplate	Sq. ft. area per plate actually used	Plate glass footage actually used	Cutting loss per Plate	Cutting loss Total
16939	1 800	9-1/2 x 30-7/8	10 x 32	2.2222	550	12 x 31	12 x 32	2.5833	1 421	.3611	199
					500	12 x 32	12 x 32	2.6667	1 333	.4445	222
18723	1 700	14-1/4 x 45-1/32	16 x 46	5.1111	1 902	15 x 46	16 x 46	4.7917	9 114	.3194†	607†
					1 200	14-3/4 x 45-3/4	16 x 46	4.6862	5.623	.4249†	510†
19045	1 500	15-3/16 x 45-11/16	16 x 46	5.111	1 100	16 x 47	16 x 48	5.2222	5 744	.1111	122
					500	16 x 46-1/2	16 x 48	5.1667	2 583	.0556	28
					800	15-3/4 x 46-3/4	16 x 48	5.1165	4 093	.0054	4
37735	6 000	15 x 19-15/16	16 x 20	2.2222	500	16 x 21	16 x 22	2.3333	1 167	.1111	56
					4 263	16 x 22	16 x 22	2.4444	10 420	.2222	947
37732	6 000	14-7/8 x 25-9/16	16 x 26	2.8889	9 350	15-1/2 x 26-1/2	16 x 28	2.8524	26 670	.0365†	341†
					2 914	16 x 28	16 x 28	3.1111	9 066	.2222	647
					2 180	16 x 26-1/2	16 x 28	2.9444	6 419	.0555	121
124557	3 423	16-3/16 x 24-23/32	18 x 26	3.25	70	17-1/4 x 26	18 x 26	3.1146	218	.1354†	9†
					2 150	17 x 26	18 x 26	3.0694	6 599	.1806†	388†
					2 850	18 x 26	18 x 26	3.25	9 262	-	
124559	3 553	16-15/32 x 24-5/32	18 x 26	3.25	750	17 x 25	18 x 26	2.9514	2 214	.2986†	224†
					800	18 x 25	18 x 26	3.125	2 500	.125†	100†
					3 006	18 x 26	18 x 26	3.25	9 769	-	
125097	2 500	11-3/16 x 29-3/8	12 x 30	2.5	40	23 x 59	24 x 60	9.4236	377	.5764†	23†
					100	24 x 32	24 x 32	5.3333	533	.3333	33
					2 254	12 x 31	12 x 32	2.5833	5 823	.0833	188
					2 200	12 x 30	12 x 30	2.5	5 500	-	-
					8	14 x 32	14 x 32	3.1111	25	.6111	5
					100	12 x 32	12 x 32	2.6667	267	.1667	16
125157	3 063	16-3/16 x 20-5/32	18 x 22	2.75	20	25 x 35	26 x 36	6.0764	122	.764†	1..
					10	21 x 54	22 x 54	7.875	79	.75†	4†
					2 000	16-3/4 x 20-3/4	18 x 22	2.4136	4 827	.3364†	673†
					490	17 x 21	18 x 22	2.4792	1 215	.2708†	133†
					3 732	18 x 22	18 x 22	2.75	10 263	-	
242369	1 950	15-3/4 x 17-15/16	16 x 18	2.	4 200	18 x 20	18 x 20	2.5	10 500	.5	2 100
242364	1 300	15-3/4 x 29-1/2	16 x 30	3.3333	2 504	18 x 32	18 x 32	4.	10 016	.6667	1 669
37731	1 378	10-53/64 x 30	12 x 30	2.5	1 634	12 x 32	12 x 32	2.6667	4 357	.1667	272
37734	1 623	14-7/8 x 31-15/16	16 x 32	3.5556	3 028	16 x 34	16 x 34	3.7778	11 439	.2222	673
38095	1 392	12 x 44-3/4	12 x 46	3.8333	2 602	14 x 46	14 x 46	4.4722	11 637	.6389	1 662
37733	2 070	15-1/16 x 23-1/4	16 x 24	2.6667	4 222	16 x 24	16 x 24	2.6667	11 259	-	-
244430	1 000	13-3/8 x 42-15/16	14 x 44	4.2778	2 160	14 x 44	14 x 44	4.2778	9 240	-	-

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POLISHED PLATE CUTTING LOSS, ANALYSIS by CUSTOMERS ORDERS, CALCULATED from SEVERAL ORDERS for peri

	Customer	Order No.	Warehouse	Date of order	Final shipping date	Material quantity	Duplate ordered Description	Pattern No.	Pla shi quan
45B	Studebaker Corp.	E-282	Chicago	8/ 8/29	2/ 4/30	1 500	Windshield	246294	1
46B		E-357	do	4/ 7/30	5/28/30	3 700	Back light	242371	1
47B		E-359	do	4/ 7/30	5/28/30	2 100	Rear quarter	242369	1
48B		E-361	do	4/ 7/30	5/28/30	3 600	Rear door	242367	2
49B		E-362	do	4/ 7/30	5/28/30	1 800	Front door	242365	1
50B		E-363	do	4/ 7/30	5/28/30	1 900	do	242364	1
						279 666			270

Cutting loss on above orders:

Polished plate glass used	2 170 866 feet
Cutting loss (net)	11 900 feet
Cutting loss (per cent)	54/100 of one per cent.

† In Red on Original Exhibit.

for period 1928, 1929 and 1930.

No.	Plates shipped quantity	Size shipped to customer	Bracket size billed to customer	Sq.ft. area per plate	Quantity pol. plate glass used Plates	Actual size pol.plate taken from stock	Bracket size pol.plate billed Duplate	Sq. ft. area per plate actually used	Plate glass footage actually used	Cutting loss per Plate	Cutting loss Total
	1 500	13-3/8 x 41-11/16	14 x 42	4.0833	1 100	14 x 44	14 x 44	4.2778	4 706	.1945	214
	1 300	11-9/16 x 29-15/32	12 x 30	2.5	2 364	14 x 32	14 x 32	3.1111	7 355	.6111	1 445
	1 400	15-3/4 x 17-15/16	16 x 18	2.	2 800	15-3/4 x 17-15/16	16 x 18	1.9622	5 494	.0378†	106†
	2 000	15-15/16 x 25-1/2	16 x 26	2.8889	2 900	15-15/16 x 25-1/2	16 x 26	2.8227	8 186	.0662†	192†
					1 100	16 x 26	16 x 26	2.8889	3.178	-	-
	1 200	15-23/32 x 25-1/2	16 x 26	2.8889	2 400	16 x 26	16 x 26	2.8889	6 933	-	-
	1 175	15-3/4 x 29-1/2	16 x 30	3.3333	2 350	16 x 30	16 x 30	3.3333	7 833	-	
	270 758				605 707				2 170 866		11 900

COMPARISON OF DETAILS OF CONTESTED ITEMS ELIMINATED FROM COST AS ACTUALLY USED BY LYBRAND ROSS BROS. AND MONTGOMERY IN PLAINTIFF'S EXHIBITS 9 AND 9a AND AS ALLEGED BY DEFENDANT TO HAVE BEEN ELIMINATED ON DEFENDANT'S SUPPLEMENTAL EXHIBIT I I

		Plaintiff's Exhibits 9 and 9a Actual Figures*	Defendant's Supplemental Exhibit I I	Overstated on Supplemental Exhibit I I	Understated on Supplemental Exhibit I I	Remarks
Plate Glass Stock Loss		$180 243.28	$180 243.28			
" " Cutting Loss		98 767.93	98 767.93			
Assembly Dept. Loss		25 889.15	25 889.15			
Assembly & Pressing Dept. Loss		23 816.12	23 816.12			
Pressing Dept. Loss		896 741.64	898 741.64			
Carbitol Dept. Loss		2 253.11	2 253.11			
Pyralin Examination Loss		87 389.47	87 389.47			
Edging Dept. Loss		269 851.23)	270 591.31			The totals of the seven items on Plaintiff's Exhibits 9 and 9a and the two items on Defendant's Supplemental Exhibit II agree.
Duplate Stock Loss		60 132.02)	83 751.68			
Rough Edge Dept. Loss		1 196.04)				
Smooth " " "		738.50)				
Polished " " "		395.52)				
Unedged Duplate Stock Rejections		4 232.93)				
Edged " " "		17 796.75)				
Adjustments resulting from revaluation of opening and closing inventories-decreases		151 435.65	151 435.65			Supplemental Exhibit II fails to credit this increase in cost allowed as an offset to the decrease eliminated.
increases		159 731.40†		$159 731.40		
Differences between Cost of Sales rejects charged to process and amount deducted later by Company.						
Amount charged to various process inventory accounts by Company during month of April	60 334.61					Supplemental Exhibit I I fails to credit offset allowed by Plaintiff's Exhibits 9 and 9a
Amount deducted by Company on summary costs for the month	59 645.69†					
Net Amount eliminated		688.92	60 334.61	59 645.69		
Adjustment of value of reclaimed Duplate charged to Pressing and Edging Dept.						
Company value eliminated	162 235.83		162 235.83			Supplemental Exhibit I I fails to credit offset allowed by Plaintiff's Exhibits 9 and 9a
Adjusted value allowed	307 802.01†			307 802.01		
Net additional value allowed		145 566.18†				
Reclaimed Duplate allowed in Plaintiff's Exhibits 9 and 9a Company had taken at no value See monthly statement of Exhibit 9 April to August 1928		2 373.39†		2 373.39		
Adjustment to Inventory made in Plaintiff's Exhibit 9- August 1928		1 487.50†		1 487.50		
Adjustment of Cost of Duplate charged to General Expense - Advertising		1 263.47†		1 263.47		Supplemental Exhibit I I contains the elimination of the reduction in expense but does not take cognizance of the offsetting reduction in Cost of Sales made in Plaintiff's Exhibits 9 and 9a
Elimination of reduction in Cost of Duplate from General Expense - Advertising		1 263.47	1 263.47			
~~Elimination of reduction in Cost of Duplate from General Expense - Advertising~~		~~1 263.47~~	~~1 263.47~~			
Adjustment of Cost of Duplate transferred to Research Dept.		579.92†		579.92		Not included in Supplemental Exhibit I I.
Extraordinary Expense		21 273.83	21 273.82			
~~Mallam Trust Note Write-off~~						

~~See monthly statement of Exhibit 9~~					
April to August 1928		2 373.39†		2 373.39	
Adjustment to Inventory made in Plaintiff's Exhibit 9- August 1928		1 487.50†		1 487.50	
Adjustment of Cost of Duplate charged to General Expense - Advertising		1 263.47†		1 263.47	Supplemental Exhibit I I contains the elimination of the reduction in expense but does not take cognizance of the offsetting reduction in Cost of Sales made in Plaintiff's Exhibits 9 and 9a.
Elimination of reduction in Cost of Duplate from General Expense - Advertising		1 263.47	1 263.47		
~~Elimination of reduction in Cost of Duplate from General Expense - Advertising~~		~~1 263.47~~	~~1 263.47~~		
Adjustment of Cost of Duplate transferred to Research Dept.		579.92†		579.92	Not included in Supplemental Exhibit I I.
Extraordinary Expense		21 273.83	21 273.82		.01
Mellon Institute Fellowship		11 250.00	11 250.00		
Commissions to Pittsburgh Plate Glass Co.		220 742.95	220 742.95		
Experimental Expense		140 601.94	139 729.30		872.64 Difference not reconciled
Triplex Suit and Legal Expense		16 788.82	20 351.45	3 562.63	do
Manufacturing Cost of Returned Sales					
Total Credits to Customers- p.12 Plaintiff's Master's Exhibit 9a	812 770.93				
Total Credits-less Cost of Returns- p.15 Plaintiff's Master's Exhibit 9a	181 490.10				
Net elimination		631 280.83	722 717.38	91 436.55	Difference explained in McHenry's testimony in hearing held Nov. 29.1932
Difference in Sales and Costs as per page 12 of Exhibit #9a		3 354.57			3 354.57 Not included on Supplemental Exhibit I I
Allowances claimed since June 1, 1930			72 060.42	72 060.42	Returns not disclosed until Exhibit I was filed
Final Totals		$2 547 122.81	$3 242 838.57	$699 942.98	$4 227.22
Net Overstatement				$695 715.76	

Reconciliation of the total eliminations shown on Exhibit #9A.

Costs of unaccounted for and/or unsold product and certain expenses excluded in computing costs of individual shipments (see page 12 of Exhibit 9a)	$2 728 612.91 *
Total credits to customers for returned sales, net of cost of returned sales (see page 15, column C, Exhibit 9a)	181 490.10
Net eliminations per Exhibit 9a	$2 547 122.81

* This detail of the eliminations made on Exhibits 9 and 9a is calculated from the monthly statements in plaintiff's Master's Exhibit 9 on those pages headed "Income Account" and "Detail of Contested Items Eliminated from Cost of Duplate Sales".

† In Red in Original Exhibit.

PLAINTIFF'S EXHIBIT NO. 31.

[fol. 1272] **PLAINTIFF'S EXHIBIT NO. 32**

Revised Summary by Months of the Profits on Profit Making Sales

(Not Printed)

[fol. 1273] **DEFENDANTS' EXHIBIT "A"**

(Copy)

Agreement

Agreement made this 17th day of October 1927 between the Triplex Safety Glass Company of North America, a corporation organized under the laws of the State of Delaware and located in the City of Hoboken, New Jersey, hereinafter called the "Triplex Company" and Ford Motor Company, a corporation organized under the laws of the State of Delaware, and located in the City of Highland Park, Michigan, hereinafter called the "Ford Company."

Whereas, the Triplex Safety Glass Company, limited, of London, England, by an agreement in writing bearing date the thirtieth day of January, 1926, agreed to sell to Amory Lawrence Haskell and Neilson Edwards, both of Red Bank, in the State of New Jersey, and the said Haskell and Edwards agreed to purchase, upon the terms and conditions expressed in said agreement, the several Letters Patent of the United States and of the Dominion of Canada described in the schedule hereunto annexed and marked "Exhibit A" and the inventions and improvements covered thereby and the trade marks also described in said schedule, all of said inventions, improvements and trade marks pertaining to the manufacture of laminated or reinforced glass known under the trademark or tradename "Triplex" and referred to hereinafter under the trademark or tradename "Triplex";

And whereas, the said agreement of January 30, 1926 has been fully performed by said Haskell and Edwards;

[fol. 1274] And whereas, the said Haskell and Edwards have sold, assigned and transferred all of their rights under

the said agreement of January 30, 1926 unto the Triplex Company;

And whereas, the Triplex Company has adopted for its use a trademark which consists of three X's within an oval (thus xxx) which was registered in the United States Patent Office August 30, 1927, under the number 232034;

And whereas, the Ford Company is desirous of acquiring from the Triplex Company the right to manufacture Triplex Glass for use in vehicles manufactured by the Ford Company or its subsidiaries, upon and subject to the terms of this agreement.

Now, therefore, in consideration of the mutual covenants hereinafter expressed, and of the sum of One Dollar by each of the parties hereto paid unto the other, the receipt whereof is hereby acknowledged, the parties hereto have agreed together as follows:

One. Subject to the approval of said The Triplex Safety Glass Company Limited, the Triplex Company gives to the Ford Company, and its subsidiaries, the right, license and privilege to make, use, practice and employ the inventions, improvements, methods, mixtures and processes covered by any or all of said Letters patent of the United States and the Dominion of Canada and now or at any time hereafter owned, controlled or in the possession of the Triplex Company and pertaining to the manufacture of laminated or reinforced glass or Triplex glass, and to install such glass in vehicles, both initially or by way of replacement, manufactured by the Ford Company or its subsidiaries, without the payment of any other consideration whatsoever, and covenants and agrees that it will communicate [fol. 1275] to the Ford Company and to any person designated by the Ford Company, completely and clearly all such information, advice, explanation and instruction as shall be necessary to enable the Ford Company, and its subsidiaries, successfully to make, use, practice and employ the inventions, improvements, methods, mixtures and processes pertaining to the manufacture of laminatel or Triplex glass which at any time hereafter shall be made or discovered and communicated to it by any person and used, practiced, and employed by the Triplex Company in the manufacture of laminated or reinforced glass and necessary to or useful in the successful commercial production of laminated or reinforced glass of a quality in every re-

spect at least equal to the quality of the laminated or reinforced glass heretofore, now and hereafter manufactured by the Triplex Company and sold by it under the name of "Triplex," and gives to the Ford Company, and its subsidiaries, the right and privilege to install such glass in such vehicles only under the trademark "Triplex", registered in the United States Patent Office August 26, 1923, under the number 93153 and under the trade mark registered August 30, 1927 under the number 232034, Provided, However, and It Is Expressly Understood and Agreed that before receiving such information, advice, explanation and instruction, every person to whom the same shall be communicated shall covenant and undertake that he will keep the same secret and for the exclusive benefit of the Triplex Company and of the said The Triplex Safety Glass Company, Limited.

Two. The Ford Company shall forthwith undertake and prosecute diligently at its expense, the development, perfection and production of a continuous process for the manufacture of Triplex Glass for use in said vehicles together with all of the necessary machinery and equipment [fol. 1276] therefor, and shall put the same in practical operation at *at* the earliest practicable date.

Three. The Ford Company shall, from time to time, as the development of the continuous process referred to in clause Two proceeds, keep the Triplex Company fully informed in writing of the progress of the work, with full and detailed information as to the construction of all machines designed and methods of manufacture employed therein, with such drawings as may be necessary and thereafter shall in like manner keep the Triplex Company informed in writing of all improvements in machines, methods, materials, etc., designed and employed for and by the Ford Company in the manufacture of Triplex or laminated glass with such necessary drawings and other data and shall permit any officer of the Triplex Company or any other person designated by the Triplex Company at any time to inspect the machinery, processes, methods and materials employed by the Ford Company, or its subsidiaries, in the manufacture of Triplex or laminated glass as provided herein. If any of such improvements shall in the opinion of counsel for the Triplex Company be deemed to

be patentable, the Ford Company shall give to the Triplex Company such information as shall be necessary to enable applications for Letters Patent of the United States to be prepared and shall also cause such invention and applications to be executed and assigned to the Triplex Company, it being understood and agreed that the entire right, title and interest in and to such improvements for the United States and for all foreign countries, shall be vested in the Triplex Company subject to the right of the Ford Company, and its subsidiaries to use the same in the manufacture of Triplex or laminated glass for use in said vehicles subject to all of the conditions of this agreement.

[fol. 1277] Four. The Ford Company adopts Triplex glass for as much of its glass equipment in the manufacture of its vehicles, and the vehicles of its subsidiaries, as it deems practicable. It agrees not to manufacture Triplex or laminated glass for or install the same except in such vehicles or parts thereof, and to etch indelibly on every piece of laminated or Triplex glass made or installed by it under the provisions of this agreement the trademark xxx registered August 30, 1927, under the number 232034 with the word "Ford" above the same and the word "Triplex" below the same, and to use the said trademark "Triplex" in all advertisements and advertising literature in which Triplex or laminated glass is referred to.

Five. The Ford Company shall at the option of the Triplex Company sell and deliver or cause to be sold and delivered to the Triplex Company, at the cost of manufacture, with no charge for engineering costs machines as designed and built by or for the Ford Company for use in the manufacture of Triplex or laminated glass and shall give to Triplex Company the full benefit and advantage of the purchasing power and position of the Ford Company, and its subsidiaries, in the purchase of glass, pyroxylin plastic or alternative materials, and binding and sealing materials for use in the production by the Triplex Company of Triplex or laminated glass for sale to the Ford Company to the end that the Triplex Company may purchase the same on terms of price and delivery as favorable under like conditions and circumstances as the same may be purchased by the Ford Company and its subsidiaries, including such materials produced by the Ford Company, or any of its

subsidiaries where such materials are produced in excess of its own requirements.

[fol. 1278] Six. When the Ford Company shall have completed the development of a continuous process for the manufacture of Triplex or laminated glass as provided in Clause Two, the Ford Company shall notify the Triplex Company thereof in writing and before April 30, 1928, shall give to the Triplex Company in writing, an order for the manufacture and delivery to the Ford Company, of windshield glass for Ford cars of Triplex or laminated glass or other pieces of Triplex or laminated glass. The Ford Company agrees to purchase Triplex glass from the Triplex Company for a period of four (4) years from and after April 30, 1928 in amount up to one-half of the monthly requirements of Triplex glass to the Ford Company, and its subsidiaries, in such quantities as shall be acceptable to the Triplex company. The Ford Company shall pay the Triplex Company therefore at the cost of production to the Ford Company or to the Triplex Company at the option of the Ford Company, of such pieces of glass plus twenty cents (20) for each Ford Windshield, as per blue prints attached, of Triplex or laminated glass so manufactured by the Triplex Company. The amount to be paid for any pieces of glass other than windshields for Ford cars shall be proportioned to the area and quality of plain glass used for the production of such other pieces of Triplex glass as they are relative to the area and quality of glass used for such Ford windshields. Cost shall be computed on the same accounting basis as that now employed in the Ford Company's glass plant. The terms of payment shall be net cash, payable on the 15th of the month following shipment unless otherwise agreed, F. O. B. factory.

Seven. It is understood and agreed that on and after May 1, 1932, the Ford Company shall be relieved from its obligation to purchase Triplex or laminated glass from the Triplex Company. All other clauses, conditions and cove-[fol. 1279] nants however, to be of full force and effect as to both parties.

Eight. It is understood and agreed that on May 1, 1930, or at any time thereafter prior to May 1, 1932, at the request in writing of either the Ford Company or the Triplex Company, the price to be paid by the Ford Company to the

Triplex Company on each piece of glass in addition to the cost of manufacture of the same shall be subject to revision as shall be agreed upon by a Committee to consist of the President of the Ford Company, the President of the Triplex Company and in the event of their inability to agree, of a third person to be mutually agreed upon by them.

In witness whereof, the parties hereto have caused this agreement to be executed by their duly authorized officers and the seals of said corporations to be hereunto affixed on the day and year first above written.

Triplex Safety Glass Company of North America, by A. L. Haskell, Its President, by Starr Cooper, Its Secretary. (Seal.)

Ford Motor Company, by Edsel B. Ford, Its President, by J. B. Craig, Its Secretary. (Seal.)

[fol. 1280] EXHIBIT A

Schedule

Letters Patent of the United States

Inventor	Number	Date	Title
Edouard Benedictus	1,098,342	May 26, 1914	Reinforced glass and process of manufacturing the same.
"	1,128,094	Feb. 9, 1915	Reinforced glass and its manufacture.
"	1,182,739	May 9, 1916	Manufacture of Strengthened glass.
"	1,206,656	Nov. 28, 1916	Press-Plate.
Leon Francis Mascart	1,342,267	June 1, 1920	Reinforced glass and process of making the same.
"	1,342,268	June 1, 1930	Manufacture of reinforced glass.

Letters Patent of the Dominion of Canada

Inventor	Number	Date
Edouard Benedictus	169,470	May 16, 1916
W. R. Lyttleton	162,587	May 18, 1915
W. R. Lyttleton	169,308	May 9, 1916.

The entire right, title and interest in, to and under the above recited several letters patent of the United States of America and of the Dominion of Canada, and in and to the several improvements and inventions covered thereby.

The entire right, title and interest within and throughout the United States of America and the Dominion of Canada, in, to and under the several trade marks heretofore registered in the United States Patent Office and used in

and/or in connection with the business of making and sell-[fol. 1281] ing laminated glass and the good will connected therewith, as follows:

The trade mark registered in the name of Societe du Verre Triplex, of Paris, France, for reinforced glass, August 27, 1912, Certificate No. 88,125, consisting of the letters VTX within a circle.

The trade mark registered in the name of Edouard Benedictus of Paris, France, for reinforced glass, August 26, 1913, certificate No. 93,153, consisting of the word Triplex.

The Triplex Safety Glass Company, Ltd., whose registered office is situated at Albemarle Street, Piccadilly, in the County of London, England, hereby consents to and approves the terms and conditions of the foregoing contract entered into between The Triplex Safety Glass Company of North America, Inc., whose offices are at Hoboken, New Jersey, and the Ford Motor Company, a Delaware Corporation, whose principal offices are at Highland Park, Michigan, both of the United States of America, expressly consenting that the Ford Company may at any time introduce and sell laminated or reinforced glass in the United Kingdom or into any other country for which the Triplex Safety Glass Company Ltd., of London England, or its associated companies, or any of them, possess the sole right of selling triplex glass so long as such glass be fitted to one of said Ford Company's motor cars, or other vehicles, contrivances or appliances thereof, and the said Triplex Safety Glass Company, Ltd., shall not be at liberty to institute any proceedings for infringement against said Ford Company for [fol. 1282] introducing such laminated or reinforced glass, or selling the same in such countries or places.

In witness whereof the Triplex Safety Glass Company Limited has caused its Common Seal to be hereto affixed this 26th day of October, 1927.

The Common Seal of the Triplex Safety Glass Company Limited was hereto affixed in the presence of Cecil Clare, Reginald Delpech, Directors.

D. McDuell, Secretary. (Seal.)

(Here follows 1 photo, side folio 1283.)

DEFENDANTS' EXHIBIT "B".

GOODS SHIPPED AT PURCHASER'S RISK OF BREAKAGE UNLESS INSURANCE IS SPECIFICALLY EFFECTED
ALL CLAIMS MUST BE MADE WITHIN THREE DAYS FROM RECEIPT OF GOODS

Pittsburgh Plate Glass Company.

GLASS - MIRRORS - PAINTS

TERMS 30 DAYS NET
1% CASH 10 DAYS

2235 GRANT BLDG

CABLE ADDRESS "GLASSPIT"

PITTSBURGH, PA. Oct, 19 29

SOLD TO Duplate Corp.,
Creighton, Pa.

OUR ORDER
YOUR ORDER
WORKS 1/8
CASES
CAR NO
SHIPPED VIA

MEMO	PLATES	SIZE	QUALITY	FEET		PRICE	AMOUNT	TOTAL
			M. Glaz 7/64"	1/28B	26-8-0	.39	10.40	
				2/8/5	20465-4-8	.45	9209.44	
				5/7	1719-2-0	.49	842.39	
				7/10	1191-10-8	.51	607.88	10670.11
			Glaz 7/64"	1/28A	450-0-0	.21	94.50	
				1/28B	71952-1-4	.35	25183.24	
				2/8/5	211803-4-8	.39	82603.33	
				2/8/5A	1038-10-8	.39	405.17	
				5/7	7973-0-8	.42	3348.69	
				7/10	6165-2-8	.43	2651.04	
				10/15	295-4-0	.44	129.95	
				15/25	87-0-0	.45	39.15	114455.07
			Silv I 7/64"	1/28B	23-4-0	.47	11.43	
				2/8/5	205-0-0	.55	112.75	
				5/7	12-0-0	.61	7.32	
				7/10	39-0-0	.65	25.35	156.85
			M Glaz 7/64"	1/28A	2812-6-0	.26	731.25	
				1/28B	12324-5-4	.39	4806.53	
				2/8/5	97043-11-4	.45	43669.77	
				5/7	46920-8-8	.49	22991.75	
				7/10	5289-8-0	.51	2697.73	74896.43
								200178.46
				Less 10%				20017.85
								180160.61
				Less 1%				1801.61
								$178359.00

[fol. 1284]

DEFENDANTS' EXHIBIT "C"

Diagram of Plant

(Not Printed.)

DEFENDANTS' EXHIBIT "D"

Blueprint—Fisher Body Corporation—April 30, 1928

(Not Printed.)

DEFENDANTS' EXHIBIT "E"

United States Patent No. 1,781,084

(Not Printed.)

DEFENDANTS' EXHIBIT "F"

Plate Production Analysis

(Not Printed.)

DEFENDANTS' EXHIBIT "G"

Order Slip—Fisher Body Corporation

(Not Printed.)

DEFENDANTS' EXHIBIT "H"

[fol. 1285] **DEFENDANTS' EXHIBIT "I-1 TO I-17"**

Samples of Glass

(Physical Exhibits.)

DEFENDANTS' EXHIBIT "J"

DEFENDANTS' EXHIBIT "K"

Analysis of Experimental Account

(Not Printed.)

DEFENDANTS' EXHIBIT "L-1"

Price Quotation

(Not Printed.)

DEFENDANTS' EXHIBIT "L-2"

Price Quotation

(Not Printed.)

DEFENDANTS' EXHIBIT "L-3"

Price Quotation

(Not Printed.)

DEFENDANTS' EXHIBIT "L-4"

Price Quotation

(Not Printed.)

[fol. 1286] **DEFENDANTS' EXHIBIT "M"**

Hudson Motor Car Company,

Detroit, Mich., U. S. A.

Cable Address: Hudson Car

April 5, 1928.

To Hudson Distributors:

We have had many inquiries from our distributors as to the possibility of their obtaining safety glass windshields, adapted for the standard Hudson-Essex models—Coaches, Sedans, and Coupes.

The Triplex Safety Glass Company of North America, Hoboken, N. J. have an attractive proposition to offer our distributors on Triplex Utility Windshield Glass for standard Hudson-Essex models, providing a sufficient demand is created to warrant their manufacturing on a production basis.

Triplex glass is a laminated glass made by uniting, under heat and pressure, two pieces of specially selected ground and polished glass with a Pyroxalin Plastic introduced between the two sheets. This laminated sheet is then sealed at all edges to insure a perfect adhesion.

When Triplex cracks under impact each small particle of glass adheres firmly to the Pyroxalin Plastic. This prevents the flying of broken glass and thus affords absolute protection from glass injuries. Also under impact Triplex is flexible.

Since approximately February 15th all Essex Sedans, Coaches, and Coupes, and all Hudson built Sedans, Coaches, and Coupes have been fitted with a standard windshield: thus one Triplex safety glass will serve all of them. Prior to February 15th two windshield glass sizes were used intermittently—the present production type, and one ⅛" narrower. It can be concluded, therefore, that the demand will be largely for the present size glass, 41" x 10-29/32".

[fol. 1287] The Triplex Safety Glass Company are prepared to supply all domestic Hudson-Essex distributors with Utility windshield glasses of this size, or will furnish combinations of both sizes at the list price of $14.50 per glass, less 40% discount, f. o. b. Hoboken, N. J. Minimum orders for windshield glasses must comprise twenty, or one

full box, and on all such orders 40% discount will apply. Their suggested installation charge is $3.00, which includes transportation and handling costs. The change can be made in exactly 20 minutes, covering removal of the windshield, removing the plate glass, replacing with Triplex, and returning the windshield to the car.

The Triplex Company have prepared a very handsome poster, which they will supply those of our distributors and dealers who wish them. A facsimile of the poster is attached to this letter.

Will you please give this proposition your consideration and advise us definitely how many cases of the glass you wish to order for immediate delivery to take care of your own and your dealers' requirements. The Triplex Safety Glass Company will be in a position to start filling orders approximately thirty days after we notify them that there is a sufficient demand to warrant their going into production on the windshield glass.

The Triplex Safety Glass Company also propose to supply you with price lists indicating list prices and discounts on Safety Glass for all Hudson-Essex models, covering door glass, back panel, also windshield and other glass for Hudson Custom models. Naturally the prices on these will be somewhat higher because of the limited production.

Yours very truly, Hudson Motor Car Company, J. E. McLarty, Service Manager.

Ser:1015.

of Detroit Ex N 4/14/32 F.R.

HUDSON
ESSEX SUPER SIXES

With beauty to match their super-six performance
— now we offer

Triplex

NON SHATTERABLE
UTILITY WINDSHIELDS
FOR CURRENT MODELS

$14.50
Plus Installation

THE VOGUE OF TOMORROW

BULLETIN: Posters reproduced in colors, 19 x 25 inches, available for window display.

DEFENDANTS' EXHIBIT "O".

Tabulation of Operating Losses—Duplate Corporation.

(Not Printed.)

DEFENDANTS' EXHIBIT "P".

DUPLATE CORPORATION

CREIGHTON, PENNA.

CULLET (POL. PLATE) SOLD TO PITTSBURGH PLATE GLASS COMPANY

July	1928	67280#	)					
Aug.	"	179800#	)					
Sept.	"	223880#	)	Bill #73 - 12/31/28				
Oct.	"	215760#	)					
Nov.	"	162400#	)					
Dec.	"	103620#	)					
Total		952940#	@	$8.00 per N. T.			3811.76	3811.76
Jan.	1929	169360#	@	8.00 " "	(Bill	#102	677.44	
Feb.	"	168200#	@	8.00 " "	(Bill	#123	672.80	
Mar.	"	213410#	@	8.00 " "	(Bill	#178	853.76	
Apr.	"	150800#	@	8.00 " "	(Bill	#208	603.20	
May	"	150800#	@	8.00 " "	(Bill	#229	603.20	
June	"	71920#	@	8.00 " "	(Bill	#275-1)	287.68	
July	"	85840#	@	8.00 " "	(Bill	#336	343.36	
Aug.	"	112520#	@	8.00 " "	(Bill	#391	450.08	
Sept.	"	61200#	@	8.00 " "	(Bill	#431	244.80	
Oct.	"	93960#	@	8.00 " "	(Bill	#466	375.84	
Nov.	"	73080#	@	8.00 " "	(Bill	#495	292.32	
Dec.	"	61480#	@	8.00 " "	(Bill	#538	245.92	5650.40
Total		1412650#						
Jan.	1930	164270#	@	$8.00 per N. T.	(Bill	#687	657.08	
Feb.	"	133400#	@	8.00 " "	(Bill	#[illegible]	533.60	
Mar.	"	112520#	@	8.00 " "	(Bill	#[illegible]	450.08	
Apr.	"	44080#	@	8.00 " "	(Bill	#716	176.32	
May	"	49880#	@	8.00 " "	(Bill	#744	199.52	2016.60 11478.76
		504150#						
		2869690#						

1290

1025

DEFENDANTS' EXHIBIT "Q".

Pyralin Losses—Duplate Corporation.

(Not Printed.)

DEFENDANTS' EXHIBIT "Q-1".

Sheets Showing Figures From Which Were Obtained Losses in Pyralin Examination Department, Reduced to Square Feet.

(Not Printed.)

D.f. & R
10/4/32 R.B

ANALYSIS OF 1/8" POLISHED PLATE GLASS USED IN PRODUCING DUPLATE (FEET ONLY)

	YEAR 1928		YEAR 1929		YEAR 1930 1/1 TO 5/30/30	
Inventory beginning of Period	74		245,105		175,534	
Purchases P.P.G.Co. Billing	3,600,212		5,206,609		1,524,086	
Difference in Count P.P.G.Co. & Duplate	169†		2,845†		4	
Glass Received Billed in subsequent period	109,344		113,380		-	
Received from Reclaiming Dept.	235,675		386,178		63,302	
Total Receipts		3,945,136		5,948,407		1,762,918
Shipments	2,160,990		4,548,265		1,584,911	
Samples (Advertising)	2,299		10,076		5,578	
Transferred to Other Departments	15,068		21,150		9,795	
Operating Loss (Exhibit "O")	1,521,684		1,090,070		148,853	
	3,700,031		5,665,559		1,548,515	
Glass billed received previous period	-	3,700,031	109,344	5,772,883	113,360	1,661,875
Inventory End of Period		245,105		175,534		101,041

ANALYSIS OF PYRALIN USED IN PRODUCING ALL LAMINATED PRODUCTS (FEET ONLY)

	YEAR 1928		YEAR 1929		YEAR 1930 1/1 TO 5/30/30	
Inventory beginning of Period	-		1,526,646		870,765	
Purchases	4,597,340		2,994,253		1,246,652	
Received from Reclaiming Dept.	32,070		193,089		31,651	
Total Receipts		4,629,410		4,713,988		1,549,068
Returns to Manufacturer	394,807		1,002,512		97,634	
Shipments	1,061,799		2,304,255		754,195	
Samples (Advertising)	1,254		6,182		658	
Transferred to Other Departments	7,654		10,615		-	
Operating Loss	1,617,670	3,102,764	1,119,691	4,445,225	210,484	1,062,791
Inventory End of Period		1,526,646		870,765		486,275

† In Red in Original Exhibit.

DEFENDANTS' EXHIBIT "R".

DEFENDANTS' EXHIBIT "S".
Patterns Cut From Pyralin Sheeting.

(Physical Exhibit.)

DEFENDANTS' EXHIBIT "T".
Patterns Cut From Glass Rectangles.

(Physical Exhibit.)

DEF

PITTSBURGH SAFETY GLASS COMPANY AND DUPLATE CORPORATION
CREIGHTON, PA.

POLISHED PLATE CUTTING LOSS ANALYSIS BY CUSTOMER ORDERS CALCULATED FROM SEVERAL ORDERS FOR PERIODS 1928-1929 & 1930

CUSTOMER	ORDER NO.	WARE-HOUSE	DATE OF ORDER	FINAL SHIPPING DATE	MAT'L. ORDERED - "DUPLATE" QUANTITY	DESCRIPTION	PATT.NO.	PLATES SHIPPED QUANTITY	SIZE SHIPPED TO CUSTOMER	BRACKET SIZE BILLED TO CUSTOMER	SQ.FT. AREA PER PLATE	QUANTITY POL.PL. GL.USED-PLATES	ACTUAL SIZE POL. PLATE TAKEN FROM STOCK	BR SI PL TO
Fisher Body Corp.	G.O.1975	Detroit	7/5/28	8/25/28	1,400	(Rear Quarter	A-13952	1,400	17-9/32x21-5/8	18 x 22	2.75	3,465	18 x 22½	18
"	" "	"				(" "	"	-	" "	18 x 22	2.75	319	18 x 26	18
"	" 2057	"	7/18/28	8/6/28	2,970	Back Lights	A-7011	2,970	9½ x 30-7/8	10 x 32	2.2222	5,940	11 x 32	12
"	" 2311	"	8/14/28	9/24/28	4,500	" "	A-7011	4,500	9½ x 30-7/8	10 x 32	2.2222	9,000	11 x 32	12
"	" 2313	"	"	"	1,600	Rear Quarter	A-13952	1,600	17-9/32x21-5/8	18 x 22	2.75	6,645	18 x 22½	18
"	" 2632	"	9/10/28	10/8/28	850	Front Door	96925	850	16-1/2x27-5/4	18 x 28	3.50	2,486	17 x 29½	18
"	" 2636	"	"	10/10/28	1,500	Windshield	A-13704	1,500	14-1/8x43-17/32	16 x 44	4.8889	3,165	15 x 45	16
"	" 2949	"	10/5/28	11/6/28	1,800	Rear Quarter	A-13952	1,800	17-9/32x21-5/8	18 x 22	2.75	4,006	18 x 22½	18
Chrysler Motor Car Corp.	D-690	"	6/22/28	11/29/28	36,800	Windshield	94975	36,800	14-7/8x45-29/32	16 x 44	4.8889	105,225	16 x 46	16
"	"	"	"	"	11,112	"	94970	11,112	12-7/16x43-27/32	14 x 44	3.2778	31,057	14 x 46	14
Pierce Arrow Motor Co.	Buff. 17	Buffalo	1/16/29	4/20/28	2,030	Back Lights	125097	2,030	11-5/16x29-5/8	12 x 30	2.5	6,060	12 x 32	12
"	" 24	"	1/17/29	3/11/29	3,370	Front Door	124558	3,370	16-1/4x31-23/32	18 x 32	4.0	10,299	17 x 33	18
"	" 33	"	1/21/29	3/14/29	570	Rear Quarter	125177	570	16-5/16x29-29/32	18 x 30	3.75	2,008	17 x 31	18
"	" 121	"	2/26/29	5/22/29	1,260	Front Door	124558	1,260	16-1/4x31-23/32	18 x 32	4.00	4,494	17 x 33	18
Studebaker Corp.	E-268	Chicago	7/13/29	1/31/30	6,300	Rear Quarter	242569	6,300	15-3/4x17-15/16	16 x 18	2.0	6,900	16 x 18½	16
"	E-268											400	16½x 18½	18
"	E-268											970	17 x 19	18
"	E-268											1,746	18 x 20	18
"	E-274	"	7/13/29	2/4/30	11,500	Rear Door	{242567 242571}	11,500	15-15/16x25-1/2	16 x 26	2.8889	30,928	16½x 26	18
"	"											3,776	17 x 26	18
"	"											900	18 x 26	18
"	"											1,050	18 x 28	18
"	E-301	"	11/20/29	5/27/30	3,375	Front Door	242565	3,375	15-15/16x25-1/2	16 x 26	2.8889	754	18 x 26	18
"	"	"										6,768	18 x 28	18
"	E-303	"	11/20/29	"	4,450	Rear "	242567	4,450	15-15/16x25-1/2	16 x 26	2.8889	9,664	18 x 28	18
"	"											500	18 x 26	18
"	E-307	"	"	"	1,825	Back Light	242571	1,825	11-9/16x29-15/32	12 x 30	2.5000	3,684	14 x 32	14
"	E-340	"	2/3/30	5/8/30	1,250	Front Door	242564	1,250	15-5/4x29-1/2	16 x 30	3.3333	1,250	16 x 30	16
"	"										3.3333	874	18 x 30	18
"	"											366	18 x 32	18
"	E-343	"	2/3/30	5/2/30	4,500	Rear Door	242567	4,500	15-15/16x25-1/2	16 x 26	2.8889	4,450	16½x 26	18
"	"											4,150	18 x 26	18
"	E-347	"	"	"	2,000	Back Light	242571	2,000	11-9/16x29-15/32	12 x 30	2.5000	4,080	14 x 32	14
Joseph N. Smith & Co.	D-182	Detroit	2/25/29	5/25/29	3,135	Windshield	6130-1	3,135	11-31/32x43-7/32	12 x 44	3.6667	4,922	15 x 45	15
"	D-202 & 218	"	3/12/29	4/5/29	925	"	A-6-5616	925	11-1/16x43-3/4	12 x 44	3.6667	2,550	12 x 46	12
Fisher Body Corp.	G.O.877	"	3/15/29	5/16/29	1,000	Rear Quarter	A-13952	1,000	17-9/32x21-5/8	18 x 22	2.75	3,900	18 x 22½	18
"	"				1,000	Windshield	A-13704	1,000	14-1/8x43-17/32	16 x 44	4.8889	5,100	15 x 45	15
"	"				200	Rear Quarter	A-13927	200	15-11/16x22-3/8	16 x 24	2.6667	990	18 x 24	18
"	G.O.394	"	2/9/29	4/4/29	1,300	Windshield	A-13704	1,300	14-1/8x43-19/32	16 x 44	4.8889	3,730	15 x 45	15
"	"	"			900	Rear Quarter	A-13952	900	17-9/32x21-5/8	18 x 22	2.75	2,400	18 x 22½	18
"	"				700	Door Light	A-17147	700	16-1/2x27-5/4	18 x 28	3.50	1,800	17 x 29½	18
TOTALS					115,522			115,522				291,705		

CUTTING LOSS ON ABOVE ORDERS

Polished Plate Glass Used	1,304,659 ft.	
Cutting Loss	86,969 "	
" " Per Cent	7.22	

DEFENDANTS' EXHIBIT "U"

PITTSBURGH SAFETY GLASS COMPANY AND DUPLATE CORPORATION
CREIGHTON, PA.

TED PLATE CUTTING LOSS ANALYSIS BY CUSTOMER ORDERS CALCULATED FROM SEVERAL ORDERS FOR PERIODS 1928-1929 & 1930

DATE OF ORDER	FINAL SHIPPING DATE	MAT'L. ORDERED - "DUPLATE" QUANTITY	DESCRIPTION	PATT.NO.	PLATES SHIPPED QUANTITY	SIZE SHIPPED TO CUSTOMER	BRACKET SIZE BILLED TO CUSTOMER	SQ.FT. AREA PER PLATE	QUANTITY POL.PL. GL.USED-PLATES	ACTUAL SIZE POL. PLATE TAKEN FROM STOCK	BRACKET SIZE.POL. PLATE BILLED TO DUPLATE	SQ.FT. AREA PER PLATE	PLATE GLASS FOOTAGE PURCH'D.	CUTTING LOSS FOOTAGE PER PLATE	CUTTING LOSS FOOTAGE TOTAL
/28	8/25/28	1,400	(Rear Quarter	A-13952	1,400	17-9/32x21-5/8	18 x 22	2.75	3,465	18 x 22½	18 x 24	3.00	10,395	.25	868
			(" "	"	-	" "	18 x 22	2.75	319	18 x 26	18 x 26	3.25	1,037	.50	159
/28/28	8/6/28	2,970	Back Lights	A-7011	2,970	9½ x 30-7/8	10 x 32	2.2222	5,940	11 x 32	12 x 32	2.6667	15,840	.4445	2,640
/14/28	9/24/28	4,500	" "	A-7011	4,500	9½ x 30-7/8	10 x 32	2.2222	9,000	11 x 32	12 x 32	2.6667	24,000	.4445	4,000
"	"	1,600	Rear Quarter	A-13952	1,600	17-9/32x21-5/8	18 x 22	2.75	6,645	18 x 22½	18 x 24	3.00	19,935	.25	4,735
/10/28	10/8/28	850	Front Door	96925	850	16-1/2x27-5/4	18 x 28	3.50	2,488	17 x 28½	18 x 30	3.75	9,350	.25	622
"	10/10/28	1,500	Windshield	A-13704	1,500	14-1/8x43-17/32	16 x 44	4.8889	3,165	15 x 45	16 x 48	5.1111	16,177	.2222	703
5/28	11/6/28	1,800	Rear Quarter	A-13952	1,800	17-9/32x21-5/8	18 x 22	2.75	4,006	18 x 22½	18 x 24	3.00	12,018	.25	1,001
/22/28	11/29/28	36,800	Windshield	94975	36,800	14-7/8x43-29/32	16 x 44	4.8889	105,225	16 x 46	16 x 48	5.1111	537,805	.2222	23,380
"	"	11,112	"	94970	11,112	12-7/16x43-27/32	14 x 44	4.2778	31,087	14 x 46	14 x 48	4.4722	138,804	.1944	6,033
/26/29	4/20/28	2,030	Back Lights	125097	2,030	11-5/16x29-5/8	12 x 30	2.5	6,060	12 x 32	12 x 32	2.6667	16,160	.1667	1,010
/27/29	5/11/29	3,370	Front Door	124558	3,370	16-1/4x31-23/32	18 x 32	4.0	10,299	17 x 33	18 x 34	4.25	43,771	.25	2,575
/31/29	5/14/29	570	Rear Quarter	125177	570	16-5/16x29-29/32	18 x 30	3.75	2,002	17 x 31	18 x 32	4.00	8,008	.25	500
/26/29	6/22/29	1,260	Front Door	124558	1,260	16-1/4x31-23/32	18 x 32	4.00	4,494	17 x 33	18 x 34	4.25	19,099	.25	1,123
/25/29	1/31/30	6,500	Rear Quarter	242569	6,500	15-5/4x17-15/16	16 x 18	2.0	6,900	16 x 18½	16 x 20	2.2222	15,333	.2222	1,533
									400	16½x 18½	18 x 20	2.50	1,000	.5	200
									970	17 x 19	18 x 20	2.50	2,425	.5	485
									1,746	18 x 20	18 x 20	2.50	4,365	.5	873
/25/29	2/4/30	11,500	Rear Door	{242567 244011}	11,500	15-15/16x25-1/2	16 x 26	2.8889	20,926	16½x 26	18 x 26	3.25	68,009	.3611	7,456
									3,776	17 x 26	18 x 26	3.25	12,272	.3611	1,364
									900	18 x 26	18 x 26	3.25	2,925	.3611	325
									1,050	18 x 28	18 x 28	3.50	3,675	.6111	642
1/30/29	5/27/30	3,375	Front Door	242566	3,375	15-63/64x25-1/2	16 x 26	2.8889	754	18 x 26	18 x 26	3.25	2,451	.3611	272
									6,766	18 x 28	18 x 28	3.50	23,688	.6111	4,136
1/30/29	"	4,450	Rear "	242567	4,450	15-15/16x25-1/2	16 x 26	2.8889	9,664	18 x 28	18 x 28	3.50	33,824	.6111	5,885
									500	18 x 26	18 x 26	3.25	1,625	.3611	181
"	"	1,825	Back Light	242571	1,825	11-9/16x29-15/32	12 x 30	2.5000	3,684	14 x 32	14 x 32	3.111	11,461	.6111	2,251
/3/30	5/8/30	1,250	Front Door	242564	1,250	15-5/4x29-1/2	16 x 30	3.3333	1,250	16 x 30	16 x 30	3.3333	4,167	-	-
								3.3333	874	18 x 30	18 x 30	3.75	3,278	.4167	364
									366	18 x 32	18 x 32	4.00	1,552	.6667	219
/1/30	5/8/30	4,300	Rear Door	242567	4,300	15-15/16x25-1/2	16 x 26	2.8889	4,450	16½x 26	16 x 26	2.8889	12,855	-	-
									4,150	18 x 26	18 x 26	3.25	13,487	.3611	1,499
"	"	2,000	Back Light	242571	2,000	11-9/16x29-15/32	12 x 30	2.5000	4,080	14 x 32	14 x 32	3.1111	12,507	.6111	2,457
/25/29	5/25/29	3,125	Windshield	6120-1	3,125	11-31/32x43-7/32	12 x 44	3.6667	4,922	15 x 45	14 x 44	4.2778	21,055	.6111	3,008
/22/29	4/5/29	925	"	A-6-5616	925	11-1/16x43-3/4	12 x 44	3.6667	3,650	12 x 46	12 x 46	3.8333	9,775	.1666	485
/25/29	5/16/29	1,000	Rear Quarter	A-13952	1,000	17-9/32x21-5/8	18 x 22	2.75	2,900	18 x 22½	18 x 24	3.00	8,700	.25	725
		1,000	Windshield	A-13704	1,000	14-1/8x43-17/32	16 x 44	4.8889	5,100	15 x 45	16 x 48	5.1111	26,067	.2222	1,133
		200	Rear Quarter	A-13927	200	15-11/16x29-5/8	16 x 24	2.6667	990	18 x 24	18 x 24	3.00	2,970	.3333	330
/4/29	4/4/29	1,500	Windshield	A-13704	1,500	14-1/8x43-19/32	16 x 44	4.8889	5,750	15 x 45	16 x 46	5.1111	19,064	.2222	829
		900	Rear Quarter	A-13952	900	17-9/32x21-5/8	18 x 22	2.75	2,400	18 x 22½	18 x 24	3.00	7,200	.25	600
		700	Door Light	A-17147	700	16-1/2x27-5/4	18 x 28	3.50	1,800	17 x 28½	18 x 30	3.75	6,750	.25	450
		115,822			115,822				291,705				1,204,869		86,969

[fol. 1295] **DEFENDANTS' EXHIBIT "V"**

Copies of United States Patents

Formation of Sheet

No. 1,519,244 to Evans, Dated December 16, 1924.
No. 1,560,078 to Gelstharp, Dated November 3, 1925.
No. 1,560,079 to Gelstharp, Dated November 3, 1925.
No. 1,569,082 to Fox, Dated January 12, 1926.
No. 1,569,134 to Owen, Dated January 12, 1926.
No. 1,576,516 to Koupal, Dated March 12, 1926.
No. 1,580,156 to Oakes, Dated April 13, 1926.
No. 1,583,779 to Core, Dated May 11, 1926.
No. 1,598,721 to Hitchcock, Dated September 7, 1926.
No. 1,622,346 to Rotheram and Evans, Dated March 29, 1927.
No. 1,657,212 to Hitchcock, Dated January 24, 1928.

Surfacing of Sheet

No. 1,519,256 to Heichert, Dated December 16, 1924.
No. 1,554,804 to Fox, Dated September 22, 1925.
No. 1,569,079 to Evans, Dated January 12, 1926.
No. 1,577,457 to Evans, Dated March 23, 1926.
No. 1,580,175 to Soderberg, Dated April 13, 1926.
No. 1,598,763 to Evans, Dated September 7, 1926.
No. 1,610,366 to Fox and Evans, Dated December 14, 1926.
No. 1,610,374 to Heichert and Evans, Dated December 14, 1926.
No. 1,629,502 to Hitchcock, Dated May 24, 1927.
No. 1,631,126 to Harrington, Dated June 7, 1927.
No. 1,657,206 to Evans, Dated January 24, 1928.
No. 1,660,330 to Fox, Dated February 28, 1928.
No. 1,671,718 to Harrington, Dated May 28, 1928.
No. 1,683,342 to Fox, Dated September 4, 1928.
No. 1,771,408 to Hitchcock, Dated July 29, 1930.

(Not Printed)

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[fol. 1296] **DEFENDANTS' EXHIBIT "W"**

Summary of Returns of Duplate, Made With Gelatine Adhesive, Made and Sold Prior to May 31, 1930, Subsequently Returned for Defects

(Not Printed)

NOTE.—It is Stipulated by all parties that Exhibit "W" contains the detail of returns of infringing product manufactured during the infringing period but returned after May, 1930, showing a returned feetage of 49,810 ft. 5 in. of a value of $83,561.42; and that Exhibit X contains the detail of credits to warehouses for replacements on account of defective infringing product manufactured and sold during the infringing period but replaced subsequent thereto, such replacements amounting to 26,679 ft. 9 in. and $72,060.42 in credits. The correctness of the data appearing in these Exhibits is not challenged, the sole issue between the parties being a question of law as to whether either or both are proper credits.

DEFENDANTS' EXHIBIT "X"

List of Allowances for Replacements, of Duplate Made With Gelatine Adhesive

(Not Printed)

DEFENDANTS' EXHIBIT "Y"

Computation of Costs of Sales

(Not Printed)

DEFENDANTS' EXHIBIT "Z"

Actual Computation of Alleged Profits and Losses

(Not Printed)

DEFENDANTS' EXHIBIT "AA".

STATEMENT SHOWING EFFECT OF CHANGES IN EXPERIMENTAL EXPENSE AND $150.00 PATENT EXPENSE NOT CLASSIFIED AS NON-OPERATING EXPENSE WHEN COMPILING DEFENDANT'S EXHIBITS Y & Z AND NOW CONSIDERED AS NON-OPERATING EXPENSE

	ORIGINAL AMOUNT USED	ADJUSTMENT	AMENDED TOTAL	PROFIT INCREASE OR DECREASE
Jan.& Feb. 1928	518.88	412.88†	106.65	
March "	323.94	49.32)	523.26	-
April "		150.00*)		-
May "	68.91	-	68.91	
June "	32.41	-	32.41	-
July "	68.80	-	68.80	-
October "	15.06	-	15.06	-
November "	167.79	287.44	455.23	-
December "	800.05	811.81	1,011.86	7.37
TOTAL	822.38	778.75	1,601.13	11.25
				14.49
	$ 2,818.22	$ 1,665.09	$ 3,883.31	$ 33.11
January 1929				
February "	417.93	-	417.93	-
March "	2,659.66	18.13†	2,641.53	.11 †
April "	539.64	-	539.64	-
May "	124.32	18.13†	106.19	7.15 †
July "	29.67	8.00	37.67	1.54
August "	2,498.91	-	2,498.91	-
September "	2,308.45	-	2,308.45	-
October "	1,988.18	-	1,988.18	-
December "	2,864.96	-	2,864.96	-
TOTAL	500.00†	747.27	247.27	18.31
	12,931.72	719.01	13,650.73	12.59
January 1930				
February "	7,300.59	920.35	8,220.92	732.85
March "	3,448.15	907.29	4,355.44	424.32
April "	3,562.02	3,090.02	6,652.04	603.12
May "	3,082.53	1,932.05	5,014.58	303.74
TOTAL	2,359.06	1,698.85 †	662.21	429.90 †
	19,752.35	5,152.84	24,905.19	1,634.13
TOTAL PROFIT INCREASE				$ 1,679.83

* Patent Expense

† In Red in Original Exhibit.

DEFENDANTS' EXHIBIT "BB".

STATEMENT OF SELLING EXPENSE ALLOWED
PITTSBURGH PLATE GLASS CO. BY DUPLATE CORPORATION,
AND EXPENSE INCURRED BY PITTSBURGH PLATE GLASS CO.

	YEAR 1928	YEAR 1929	1ST 5 MOS. 1930	TOTAL
Allowed P.P.G.Co. by Duplate as per accounting filed	85,746.55	105,300.18	29,668.55	220,715.28
Expense incurred by P.P.G.Co.	113,174.06	303,160.72	122,811.20	539,145.98
LOSS TO P.P.G.CO.				$318,430.70

DEFENDANTS' EXHIBIT "CC".

Collection of Papers Used in Illustration by the Witness.

(Not Printed.)

DEFENDANTS' EXHIBIT "DD"

STATEMENT OF DUPLATE SALES AND SALE OF PLATE GLASS FROM PITTSBURGH PLATE GLASS CO., CREIGHTON, TO DUPLATE

	1948			1949			1ST 5 MONTHS 1950		
	FEET	PRICE	AMOUNT	FEET	PRICE	AMOUNT	FEET	PRICE	AMOUNT
Duplate Sales	1,068,588	$1.9961	$2,159,796.52	2,306,106	$2.0303	$4,682,146.46	752,566	$1.8738	$1,359,672.66
Sales 1/8" Glass P.P.G.Co. to Duplate	3,600,812	$.41638	$1,498,706.80	5,206,609	$.40394	$2,097,975.80	1,583,222	$ .55045	$ 519,769.61

Exhibit R shows billed from Pittsburgh Plate Glass Co. to Duplate first 5 months of 1950 - 1,584,066 sq.ft. This statement shows 1,583,222 sq.ft. Exhibit R shows total billing, this statement shows only amount of glass used up to May 26, 1950 that was laminated, as at May 25, 1950, we changed from gelatin to casein adhesive. Exhibit R inventory May 30, 1950 includes laminated and unlaminated glass.

1300

1-1625

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DEFENDANTS' EXHIBIT "EE".

STATEMENT SHOWING PROFIT ON SALE OF 1/8" GLASS FROM PITTSBURGH PLATE GLASS COMPANY TO DUPLATE CORPORATION, ALLOWING CREDIT FOR SALE OF 1/4" PLATE GLASS TO CUSTOMERS, HAD DUPLATE NOT BEEN SOLD.

	1928	1929	1ST 5 MOS. 1930
If Duplate had not been sold the Pittsburgh Plate Glass Co. would have sold one sheet of glass to each foot of Duplate sold or	* 962,448	* 2,019,360	* 617,728
Less Net Sales to Fisher & Fleetwood	* 558,137	* 640,155	* 23,272
Balance	404,311	1,379,205	594,456
Sales of 1/8" Glass P.P.G.Co.to Duplate	3,600,212	5,206,609	1,483,822
Feet of 1/8" on which to compute Profit	3,195,901	3,827,404	888,778
Sales Price Average	$ .41628	$ .40294	$ .35045
Cost as filed	$ .34432	$ .31380	$ .35730
Profit or Loss per foot	$ .07196	$ .08914	$ .00687†
Profit or Loss on above	$ 229,977.04	$ 341,174.79	$ 6,106.81†
TOTAL NET PROFIT			$ 565,046.61

* Sales of Duplate in square feet less Returns.

† In Red in Original Exhibit.

DEFENDANTS' EXHIBIT "FF"

PROFIT ON SALE OF 1/8" GLASS FROM PITTSBURGH PLATE GLASS CO., CHEIGHTON, TO DUPLATE CORP'N.

	1928	1929	1ST 6 MOS. 1930	TOTAL
Footage	5,600,512	8,806,809	1,485,222	
Sales Price Average	$ .41828	$ .40894	$ .35045	
Cost as Filed	$ .34452	$ .31360	$ .35720	
Profit or Loss per Foot	$ .07196	$ .08914	$ .00687†	
Profit or Loss on above	$ 359,071.85	$484,117.13	$ 10,189.72†	$ 712,998.65

(ILLUSTRATION ONLY) PROFIT COMPUTED EXCLUDING ITEMS WHICH TRIPLEX COMPANY CLAIMS SHOULD BE EXCLUDED

	1928	1929	1ST 6 MOS. 1930	
Items which Triplex claims should be excluded:				
Allowance for use of Patented Process	$ .12874	$ .09907	$ .09694	
Federal Income Tax	$ .02867	$ .02194	$ .01596	
Cutting Loss	$ .01848	$ .01681	$ .02590	
Total Items thus excluded	$ .16829	$ .13782	$ .13879	
Cost as filed	$ .34452	$ .31360	$ .35720	
Cost per Triplex Claim	$ .18145	$ .17658	$ .22051	
Sales Price	$ .41828	$ .40294	$ .35045	
Profit per foot per Triplex Claim	$ .23683	$ .22636	$ .12992	
Profit per Triplex Claim in Dollars	$ 845,809.79	$ 1,178,568.01	$ 192,700.20	$2,216,778.00

ABOVE PROFIT REDUCED BY DEDUCTING FEET OF PLATE GLASS WHICH PITTSBURGH PLATE GLASS CO. WOULD HAVE SOLD IF NO DUPLATE HAD BEEN SOLD (SEE EXHIBIT EE).

	1928	1929	1ST 5 MOS.1930	
Feet of 1/4" Plate Glass which would thus have been sold	404,311	1,379,805	594,456	
Profit per foot per Triplex Claim	$ .23485	$ .22636	$ .12992	
Said Profit in Dollars	$ 94,978.44	$ 312,196.84	$ 77,231.72	$ 484,381.00
TOTAL PROFIT				$1,732,897.00

STATEMENT OF DUPLATE-CORPORATION LOSS

	1928	1929	1ST 5 MOS. 1930	
Accounting as originally filed Loss	$ 560,548.05†	$ 434,326.60†	$ 22,070.86†	$1,016,945.49†
Less Items not considered Operating Cost	$ 7,148.48	$ 31,557.90	$ 31,629.67	$ 70,336.05
" Admitted Error Interest on Investment 1928	$35,000.00			$ 35,000.00
TOTAL DEDUCTIONS	$42,140.48	$ 31,557.90	$ 31,629.67	$ 105,336.05
Profit & Loss	$518,407.55†	$402,768.70†	$ 9,558.81	$ 911,617.44†
Plus Returns received since 6/1/30				$ 83,561.42†
" Allowances " "				$ 72,060.42†
TOTAL LOSS				$1,067,239.28†

† In Red in Original Exhibit.

DEFENDANTS' EXHIBIT "GG"

STATEMENT SHOWING GROSS SALES AND COST OF SALES OF DUPLATE FOR PERIOD - YEARS 1928-1929-1ST FIVE MONTHS 1930

	1928			1929			1ST FIVE MONTHS 1930			TOTAL	
	SQ. FT.	PRICE PER FT.	AMOUNT	SQ. FT.	PRICE PER FT.	AMOUNT	SQ. FT.	PRICE PER FT.	AMOUNT	SQ. FT.	AMOUNT
Sales	1,088,532	1.9951	2,159,795.32	2,306,106	2.0363	4,682,145.45	732,568	1.6736	1,259,672.86	4,141,206	8,101,614.63
Cost of Production	1,088,532	2.4740	2,678,202.87	2,306,106	2.3949	5,884,918.16	732,568	1.8611	1,350,114.04	4,141,206	9,013,232.07
Profit or Loss	1,088,532	.4789†	518,407.55†	2,306,106	.1746 †	402,768.70†	732,568	.6127	9,558.81	4,141,206	911,617.44 †
Plus Returns Received since 6/1/30											83,561.42 †
Plus Allowances since 6/1/30											72,060.42 †
											$1,067,239.28 †

† In Red in Original Exhibit.

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DEFENDANTS' EXHIBIT "HH".

PROFIT ON CERTAIN OF DUPLATE SALES, IF AVERAGE COST IS APPLIED TO INDIVIDUAL SALES

	1928	1929	1ST 5 MOS. 1930	TOTAL
Profit	3,408.46	130,829.35	48,751.80	182,987.01
Plus Profit due to Allowance of Additional Expenses as Non-Operating	33.11	12.59	1,634.13	1,679.83
	3,439.57	130,841.94	50,385.33	184,666.84
Less Proportion of Allowances since 6/1/30				18,231.29
				$166,435.55

STATEMENT OF ITEMS EXCLUDED FROM COST BY ACCOUNTING AS CLAIMED BY TRIPLEX COMPANY

	PLATE GLASS STOCK LOSS		PLATE GLASS CUTTING LOSS		ASSEMBLY DEPT. LOSS	
	FEET	AMOUNT	FEET	AMOUNT	FEET	AMOUNT
1928	244,189	$104,571.65	41,995	$ 18,602.12	14,130- 3	$ 15,288.66
1929	179,401	$ 75,109.98	130,106	$ 58,980.95	8,869	$ 8,932.16
1930	1,628	$ 561.65	75,905	$ 27,184.86	1,732	$ 1,668.35
	425,218	$180,243.28	248,006	$ 98,767.93	24,231- 3	$ 25,889.15

	PYRALIN EXAMINATION LOSS		EDGING DEPT. LOSS		DUPLATE STOCK LOSS	
	FEET	AMOUNT	FEET	AMOUNT	FEET	AMOUNT
1928	-	-	126,816- 3	$155,854.32	22,403- 6	$ 28,423.15
1929	163,804	$ 46,250.10	78,471	$104,388.25	39,861- 6	$ 54,075.15
1930	39,238	$ 41,139.37	8,902	$ 10,448.74	1,078	$ 1,253.38
	203,042	$ 87,389.47	114,189- 3	$270,591.31	63,343	$ 83,751.68

	EXTRAORDINARY EXPENSE		EXPERIMENTAL EXPENSE		GENERAL EXPENSE		TRIPLEX SUIT & LEGAL EXPENSE		COMMISSION PITTSBURGH PLATE GLASS CO.	
	FEET	AMOUNT	FEET	AMOUNT	FEET	AMOUNT	FEET	AMOUNT	FEET	AMOUNT
1928,	-	-	-	49,973.69	-	547.82	-	1,532.17	-	85,746.56
1929	-	17,652.66	-	48,447.16	-	715.65	-	14,421.80	-	105,300.18
1930	-	3,621.16	-	41,308.45	-	-	-	4,397.48	-	29,696.22
	-	21,273.82	-	139,729.30	-	1,263.47	-	20,351.45	-	220,742.95

DEFENDANTS' EXHIBIT "II".

(PLAINTIFF'S EXHIBITS 8 - 8-A & 10)

ASSEMBLY & PRESSING DEPT. LOSS		PRESSING DEPT. LOSS		CARBITOL DEPT. LOSS	
FEET	AMOUNT	FEET	AMOUNT	FEET	AMOUNT
-	-	457,357- 2	$ 537,392.74	-	-
-	-	262,858	$ 347,843.67	1,910	$ 2,253.11
13,068	$ 13,816.12	10,570	$ 11,505.23	-	-
13,068	$ 13,816.12	730,785- 2	$ 896,741.64	1,910	$ 2,253.11

SALVAGED OR RECLAIMED STOCK TAKEN INTO POSSESSION		COMPANY'S ESTIMATED COST OF REJECTS CHARGED TO PROCESS COST LATER DEDUCTED		ADJUSTMENTS RESULTING FROM RE-VALUATIONS OF OPENING AND CLOSING INVENTORIES BASED ON ADJUSTED COST	
FEET	AMOUNT	FEET	AMOUNT	FEET	AMOUNT
31,149- 7	$ 49,401.77	-	-	-	$ 44,519.65
193,089	$104,127.02	-	$ 60,334.61	-	$100,116.91
31,651	$ 8,707.04	-	-	-	$ 6,799.11
255,889- 7	$162,235.83	-	$ 60,334.61	-	$151,435.65

DONATIONS		CREDIT FOR RETURNS NOT ALLOWED		ALLOWANCES SINCE 6/1/30		TOTAL	
FEET	AMOUNT	FEET	AMOUNT	FEET	AMOUNT	FEET	AMOUNT
-	1,875.60	*	175,736.30	-	-	938,040-11	1,267,465.36
-	7,500.00	*	452,432.90	-	-	1,057,869- 6	1,382,832.56
-	1,875.00	*	116,498.09	-	72,060.42	185,772	392,540.65
-	11,250.00	*	728,717.38	-	72,060.42	2,179,682- 5	3,242,838.57

[fol. 1306] **DEFENDANTS' EXHIBIT "JJ"**

(Not Printed)

DEFENDANTS' EXHIBIT "KK"

Statistical Issue "Automotive Industries"

Table—"New-Car Registrations", Contained in Exhibit "KK".
Schedule—"Average Retail Price of Passenger Cars", Contained in Exhibit "KK".
Schedule—"Average Retail Price of Trucks", Contained in Exhibit "KK".
Table—"Per Cent. of Total Car Sales by Leading Groups", Contained in Exhibit "KK".

(Not Printed)

[fol. 1307] Clerk's certificate to foregoing transcript omitted in printing.

Defendants' Original Exhibit
"O" before Master.

UNITED STATES OF AMERICA
EASTERN DISTRICT OF PENNSYLVANIA
THIRD JUDICIAL CIRCUIT } *Sct.*

I, Wm. P. Rowland, Clerk of the United States Circuit Court of Appeals for the Third Circuit, DO HEREBY CERTIFY that the attached papers are Defendants' Master's Exhibit O, as filed in this Court in the cases of Duplate Corp., et al. vs. Triplex Safety Glass Company of North America, No. 5606; and vice versa on cross appeal, No. 5626, which was not reproduced in the printed record.

and now remaining among the records of the said Court, in my office.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the seal of the said Court, at Philadelphia, this 29th day of January, in the year of our Lord one thousand nine hundred and thirty-six and of the Independence of the United States the one hundred and sixtieth.

Wm. P. Rowland
Clerk of the U. S. Circuit Court of Appeals, Third Circuit.

1205

Triplex

RECAPITULATION OF PLANT OPERATING LOSSES

GLASS			POL. PLATE FEET	DUPLATE FEET	AMOUNT
Sheet 1	Jan. & Feb.	1928	-	809	895.16
" 2	March	"	10-2-10	274-2	390.69
" 3	April	"	-	528-5	859.77
" 4	May	"	30-2	3030-3	5,135.12
" 5	June	"	468-0	11299-6	13,968.15
" 6	July	"	984-0	98367	134,944.74
" 7	August	"	-	141234-2	171,275.91
" 9	September	"	92038	138752	222,656.26
" 10	October	"	58368	125666	198,795.73
" 11	November	"	24938	61044-3	89,559.96
" 12	December	"	129284	37368	99,413.24
	Total	"	286120-4-10	617772-9	$931,292.73
" 13	January	1929	2298	105136	167,343.58
" 14	February	"	5462	108546	174,770.08
" 15	March	"	2905	54544	110,448.91
" 16	April	"	28325	9947	26,559.70
" 17	May	"	14377	8995	18,480.96
" 18	June	"	7759	15005	22,448.33
" 19	July	"	15319	8312	19,654.17
" 20	August	"	27304	33941	52,205.08
" 21	September	"	12645	9534	16,626.17
" 22	October	"	18715	11335	19,673.99
" 23	November	"	10568	8675	14,607.80
" 24	December	"	7071	14192	22,313.96
	Total	"	313748	388162	$665,827.98
" 25	January	1930	29004	9518	20,651.95
" 26	February	"	16177	7350	13,752.76
" 27	March	"	15916	8374	14,450.94
" 28	April	"	10327	4943	8,976.96
" 29	May	"	6109	5171	7,684.17
	Total	"	77533	35350	$65,516.78

RECAPITULATION

Year 1928	286120	617772-9	$931,292.73
" 1929	313748	388162	$665,827.98
" 1930	77533	35350	$ 65,516.78
	677401	1041284	$1,662,637.49

Unlaminated Glass Loss in	1928	1929	1930	TOTAL
Polished Plate Feetage	286120	313748	77533	677401
Laminated Glass Loss in Polished Plate Feetage	1235545	776324	70700	2082569
TOTAL	1521665	1090072	148233	2759970

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PRODUCTION LOSS ANALYSIS - GLASS

JANUARY AND FEBRUARY 1928

Losses:-	Pol. Plate Feet	Duplate Feet	Price	Amount
Due to low production and introduction of new product, shrinkage and cutting loss also Assembly operating loss transferred with raw materials to the Pressing Department.				
A- Pressing Department:-				
Operating Loss		187 ft.	1.28260	239.85
Edging Department:-				
Operating Loss		22 ft.	2.51420	55.31
Finished Stock:-				
Loss in Stock - None reported		-		

Inventories:-

Pol. Plate Stock	194 Ft.
Edging Department	136 Ft.

Total		209	295.16

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PRODUCTION LOSS ANALYSIS - GLASS

MARCH 1928

Losses:-	Pol. Plate Feet	Duplate Feet	Price	Amount
No record of polished plate glass broken in stock. Included with transfer of raw materials and included with Assembly operating loss.	10-2-10		.32280	3.31
Pressing Department:-				
Operating Loss		220-4 ft.	1.23130	271.30
Edging Department:-				
Operating Loss		53-10 ft.	2.15640	116.09

Finished Stock Loss:-
None recorded in March 1928

Inventories:-

Pol. Plate Stock	218-0-0	ft.
Pressing Dept.	44-11-0	"
Edging Dept.	11-3-4	"
Duplate Stock Account	151-5-7	"
Smooth Edge Work	424	In.
Polished " "	424	"

1311

Total	10-2-10	274-2 ft.		390.79

G3107

PRODUCTION LOSS ANALYSIS - GLASS

APRIL 1928

		Pol. Plate Feet	Duplate Feet	Price	Amount
Losses:					
Polished plate glass broken in stock and cutting loss included with Assembly operating loss.					
Assembling Department					
Operating Loss			12-10	.64800	8.32
Pressing Department					
A Operating Loss	7-6				
A-1 Operating Loss	335-6				
A-2 Operating Loss(Multiple Press)	4-6		347-6	1.32400	460.09
Edging Department					
A Operating Loss	82-3				
A-1 Operating Loss	72-4				
Inventory Adjustment	13-3		168-1	2.18970	368.05
Edgework					
Smooth Edges					23.31
Inventories					
Polished Plate Stock	1420-0 Ft.				
Pressing Dept.	92-9 "				
Edging Dept.	64-7 "				
Duplate Stock	58-7 "				
Smooth Edgework	1052 In.				
Polished Edgework	1052 "				
	Total	-	528-5	-	859.77

1312

CONFIDENTIAL

PRODUCTION LOSS ANALYSIS - GLASS

MAY 1928

			Pol. Plate Feet	Duplate Feet	Price	Amount
Losses:-						
A-	Pol.Plate Breakage-Assembly	29-2				
A-1	Pol.Plate Breakage-Assembly	1-0	30-2		.34350	10.38
Assembly Department:-						
	Operating Shrinkage			38-5	.68700	26.40
Pressing Department:-						
B-B1	Operating Shrinkage	2500-11				
	Inventory Adjustment			2377-2	1.41630	3366.77
Edging Department:-						
C-	Operating Shrinkage	233-3				
C-1	Operating Shrinkage	362-1				
C-2	Operating Shrinkage	29-0				
	Inventory Adjustment	9-8		614-8	2.45380	1508.27
Edgework:-						
	Smooth					2.20
	Polished					219.10
Stock Loss:-						
	None reported this month					
Inventories:-						
	Pol. Plate Stock	5265-0 Ft.				
	Assembling Dept.	226-0 "				
	Pressing Dept.	135-4 "				
	Edging Dept.	2228-6 "				
	Rough Edgework	1800 In.				
	Smooth Edgework	2240 "				
	Polished Edgework	79332 "				

1313

Total		30-2	3030-3	5133.12

PRODUCTION LOSS ANALYSIS - GLASS

JUNE 1928

			Pol. Plate Feet	Duplate Feet	Price	Amount
Losses:						
	Polished Plate Glass broken in Stock		468-0		.33358	156.12
Assembly Department:						
A	Operating Shrinkage	61-2				
A-1	Operating Shrinkage	83-0		144-2	.66954	96.52
Pressing Department:						
B	Operating Shrinkage	4072-4				
B-1	Operating Shrinkage	5-2				
B-2	Operating Shrinkage	3578-1				
B-3	Operating Shrinkage	1364-7				
B-4	Operating Shrinkage					
	Inventory Adjustment	336-4		9363-2	1.11060	10397.80
Edging Department:						
	Operating Shrinkage			1792-2	1.66170	2978.05
Edgework:						
	Smooth					1.09
	Polished					338.57
Inventories:-						
	7/64" Pol. Plate Stock	2176 Ft.				
	Assembled Glass	586-1				
	Pressed Glass	1273-8				
	Edging Department Glass					
D	Pressed Glass Transferred to E. D. Unfinished	2212-8 Ft.				
D-1	Pressed glass transferred to Edging Department	3442-6				
D-2	Pressed Glass Transferred to Edging Department	2056-11				
D-3	Pressed Glass transferred to E. D. Ford City	779-2				
	Physical Inventory	29-4				
		8520-7				
Finished Stock - Duplate						
E	Physical Inventory	4094-6 Ft.				
E-1	Physical Inventory	6835-2				
E-2	Physical Inventory	261-0				
E-3	Physical Inventory	3192-9				
E-4	Physical Inventory	169-2				
E-5	Physical Inventory	3016-7				
E-6	Physical Inventory	3638-11				
E-7	Physical Inventory	1287-6				
	Physical Inventory	7741-3				
		30236-10				
Edgework:-						
	Polished Edgework	530652 In.				
			468-0	11299-6		13968.15

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PRODUCTION LOSS ANALYSIS - GLASS

JULY 1928

		Pol. Plate Feet	Duplate Feet	Price	Amount
Polished Plate Glass broken in stock		984		.36678	360.91
Cutting Loss not shown separately on Form "J" for the month of July and was included with Polished Plate transfers to the Assembly Department where it was later absorbed by this Department					
Assembly Dept. Loss:					
A Pol. Plate Shrinkage-Turn #1	87-6-9				
B " " " " #2	48-8-2				
C " " " " #3	72-7-10				
D " " Loss cutting rejects from Assemb.	2560-1-8				
Inventory adjustment	15-11-7		2735	.73518	2047.48
Pressing Dept. Loss:					
E Pressing Rejects - Turn #1	18350-8-10				
F " " - " #2	16180-6-5				
G " " - " #3	17730-6-0				
Inventory adjustment	1419-5-9		53681	1.07590	57755.66
Edging Dept. Loss:					
H Edging Rejects - Turn #1	3775-8-5				
I " " " #2	7291-6-1				
J " " " #3	6683-5-5				
Inventory adjustment			20394	1.53410	31287.71
Duplate Loss in Finished Stock: This Duplate transferred from the Edging Department to Finished Stock and after final inspection was rejected for various defects. Charged to Stock at value during previous months and loss absorbed during month of July 1928.			21527	1.84876	39798.41
Edgework:					
Smooth					44.75
Polished					3649.82
Inventories					
Polished Plate Stock	52092 Ft.				
Assembly Dept.	10792-4 Ft.				
Pressing Dept.	2035-7 "				
Edging Dept.	20393-1 "				
Duplate Stock	29901-1 "				
Polished Edgework	253798 In.				
1315 Total		984	98387		134944.74

PRODUCTION LOSS ANALYSIS - GLASS

AUGUST 1928

		Pol. Plate Feet	Duplate Feet	Price	Amount
A	Pol. Plate Cutting Loss not shown separately on Form "J" for the month of August. Loss Cutting and breakage (14070 ft.) included with Pol. Plate Transfer (682367 Ft.) to Assembly Department where it was later absorbed by this Department				
	Assembly Department Loss:-				
B	Assembled Glass Shrinkage Turn #1	129-11-3			
	" " " " #2	97-10-7			
	" " " " #3	133-2-5			
	Pol.Plate Loss 14070 Ft.-Duplate	7035-0-0			
	Inventory Adjustment	800-11-9	8197	.74136	6076.93
	Pressing Department Loss:-				
C	Shrinkage Turn #1	22877-9-8			
	" " #2	25551-0-11			
	" " #3	25545-7-7			
D	Pressed Glass rejected at Edging	7865-11-1			
	" " " " "F.City	11053-8-4			
	Inventory Adjustment	1155-9-5	94049-11	1.08650	102185.23
	Edging Department Loss:-				
E	Edged Glass Shrinkage Turn #1	11334-4-0			
	" " " " #2	15905-6-3			
	" " " " #3	10009-10-0			
	Inventory Adjustment	1737-6-9	38987-3	1.57340	61342.54
	Edgework:-				
	Rough				
	Smooth				1563.65
	Polished				80.68
					26.88
	Inventories:-				
	Assembled Glass	858 Ft.			
	Pressed Glass	3036 "			
	Edged Glass	16675 "			
	Finished Glass Duplate	24958 "			
	Rough Edgework	501816 In.			
	Smooth Edgework	276206 "			
	Polished Edgework	252024 "			
	Total		141234-2		171275.91

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PRODUCTION LOSS ANALYSIS - GLASS

Ledger Account of Polished Plate - September 1928

Inventory 9/1/28	95532 Ft.		
Received from P.P.G.Co.	809178 "		
Received from Reclaiming Operation	41856 "		
Total		946566 Ft.	
Deduct Inventory 9/30/28		131600 "	
Glass transferred from P.P. Stock - Sept.		814966 Ft.	
Deduct glass used in Assembly - Form "J"		722928	
Total P.P. Glass loss - Sept. - Form "J"			92038 Ft.

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Record of Physical Inventory - September 30th, 1928

Polished Plate Stock

Sheet A	P.P. glass stock at Cutting Operation	18957 Ft.		
B	P.P. glass stock at Cutting Operation	54885 "	73842 Ft.	
C	P.P. glass stock at Assembly Department	2183		
D	P.P. glass stock at Assembly Department	611		
E	P.P. glass stock at Assembly Department	918	3712 Ft.	
F	P.P. glass stock at Salvage Department	13507		
G	P.P. glass stock at Salvage Department	15375	28882 Ft.	
H	P.P. glass stock in transit from Cutting operation to Assembly Dept. not included in Cutting operation inventory		25164 Ft.	
9/30/31	Total physical inventory as recorded			131600 Ft.
	Inventory as shown on Form "J"			131600 Ft.

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PRODUCTION LOSS ANALYSIS

SEPTEMBER 1928

		Pol. Plate Feet	Duplate Feet	Price	Amount
Cutting Operation Loss:-					
P.P. glass returned from Assembly - Actual size	103795				
P.P. glass salvage from Assembly Returns	55559				
	48236				
Glass broken in handling stock	977				
Loss Cutting P.P. glass to order size - recorded	13000				
Inventory adjustment	29735				
	43802				
Total P.P. glass loss		92038		.39512	36366.05
Pressing Department Loss:-					
A - Operating Shrinkage	39980				
B - " "	31268				
C - " "	31638				
" " & Inventory adjustment	10998		113904	1.13660	129463.95
Edging Department Loss:-					
E - Operating Shrinkage	4132				
F - " "	6345				
G - " "	5377				
I - " " (Ford City)	5766				
Inventory adjustment	3208		24828	2.23389	55463.25
Edgework:-					
Rough					1266.93
Smooth					55.18
Edged					40.90
Inventories:-					
Polished Plate Stock - Refer to Pol. Plate Analysis attached.					
J - Assembled Duplate	3144 Ft.				
K - Pressed "	2908				
L - Edging Dept. Duplate	25931				
M - Finished Stock "	29209				
Rough Edge Work	528246 In.				
Smooth " "	454846 "				
Polished Edge Work	444530 "				
Total		92038	138732		222656.26

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PRODUCTION LOSS ANALYSIS - GLASS

OCTOBER 1928

		Pol. Plate Feet	Duplate Feet	Price	Amount
Polished Plate Cutting Loss reported		23801		.44294	10536.23
Polished Plate Stock Loss					
A Pol. Plate rejected by Assembly reported Period 10/1 to 10/18/28	5629				
A Pol. Plate rejected by Assembly	4000				
B Assembly Shrinkage Duplate	2311				
Inventory Adjustment	2627	14567		.44294	6452.32
Pressing Dept. Loss					
C Pressing Dept. Shrinkage - Turn #1	34127				
D Pressing Dept. Shrinkage - Turn #2	33125				
E Pressing Dept. Shrinkage - Turn #3	32888				
Inventory adjustment	810		99630	1.21459	120889.04
Edging Dept. Loss					
F Edging Shrinkage - Turn #1	6829				
G " " " #2	9051				
H " " " #3	7992				
I " " Ford City	2264		26136	2.05833	53796.64
Edgework					
Rough					1064.77
Smooth					54.62
Polished					12.11
Inventories					
J Assembled Glass "Duplate"	834 Ft.				
K Pressed " "	2297 "				
L Edged " "	19250 "				
M Finished " "	53063 "				
Rough Edgework	772104 In.				
Smooth "	759920 "				
Polished "	754796 "				
1319 Totals		38368	125666		192795.73

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PRODUCTION LOSS ANALYSIS - GLASS

NOVEMBER 1928

			Pol. Plate Feet	Duplate Feet	Price	Amount
Polished Plate Loss						
A-1	Cutting Loss - Cutting Dept.	5086				
A-2	" " " "	6878				
	" " " " Misc.	304	12268		.44740	5488.76
B-1	Stock Loss Reclaiming A.D. Rets	12282				
B-2	Stock Loss Breakage	388	12670		.44740	5668.62
Pressing Dept. Loss						
C-1	Pressed Glass Shrinkage	271				
C-2	" " " Southwark Press	732				
C-3	Pressing Shrinkage Turn #1	4665				
C-4	" " " #2	15893				
C-5	" " " #3	12260				
C-6	Loss Reclaiming Set Aside	379				
C-7	" " " "	1122				
C-8	Pressed Glass Rejects from E.D.	10223				
C-9	Pressed Glass Shrinkage - Saw Cutting	231				
C-10	Pressed Glass Shrinkage	51				
C-11	" " Rejects from E. D.	82				
C-12	Assembly Shrinkage	45				
C-13	" "	1280				
C-14	" "	893				
	Pressed Glass Rejects from Edging	2997		51124	1.18210	60434.07
Edging Dept. Loss						
D-1	Edging Shrinkage	4670-8				
D-2	" "	3586-7				
D-3	" "	863-7				
D-4	" "	39-5				
	Inventory Adjustment	17-3		9177-6	1.78068	16342.16
Finished Duplate Loss						
E-1	Loss in Stock			742-9	1.83970	1366.44
Edgework						
	Rough					211.83
	Smooth					37.38
	Polished					10.70
Inventories						
F	Polished Plate Stock	147987 Ft.				
G	Assembled Duplate	1079-4				
H	Pressed Duplate	571-7				
I	E. D. Duplate	8867-3				
J	Duplate Finished Stock	39077-11				
	Rough Edgework	293750 In.				
	Smooth Edgework	293750 "				
	Polished Edgework	293750 "				
	Total		24938	61044-3		89559.96

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PRODUCTION LOSS ANALYSIS - GLASS

DECEMBER 1928

		Pol. Plate Feet	Duplate Feet	Price	Amount
Cutting Loss - 5926 Sq.Ft. Pol. Plate					
A- Loss Cutting Pol. Plate-Oversize	2444				
B- Loss Cutting Pol. Plate Reclaimed Glass Stock	3482	5926		.42405	2512.92
Operating Stock Loss - 5136 Sq.Ft. Pol. Plate					
C- Stock Loss on P.P. Rejects from Assembly to Cutting	2907				
D- Stock Loss on P.P. Broken in Cutting Dept.	547				
E- Stock Loss on P.P. Broken in Assembly Dept.	1592				
Inventory Adjustment	90	5136		.42405	2177.92
Stock Loss - Transferred to General Books 118222 Sq.Ft. Polished Plate recovered by separation from Duplate rejects and returned to Polished Plate stock during previous months. Found worthless in December and charged off at value used to set up in Stock Account.		118222		.42405	50131.98
Pressing Department Shrinkage					
F- Examiners Report of Productions and Losses	30218				
G- Examiners Report of Saw Cutting-Pressing Dept.	2163				
H- Examiners Report of Production - Research	191		32572	1.10450	35975.77
Edging Department Shrinkage					
I- Examiners Report of Production	4559				
Inventory Adjustment	104		4663	1.77820	8291.67
Duplate Stock Loss					
Inventory Adjustment			133	1.79383	238.58
Edgework					
Rough					73.37
Smooth					8.64
Polished					2.39

Inventories

Pol. Plate Glass	44666 Ft.
Assembling Dept.	4171 "
Pressing Dept.	3207 "
Edging Dept.	17251 "
Duplate Stock	75590 "
Rough Edgework	764498 In.
Smooth Edgework	686436 "
Polished Edgework	685160 "

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Total	129284	37368		99413.24

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PRODUCTION LOSS ANALYSIS - GLASS

JANUARY 1929.

			Pol. Plate Feet	Duplate Feet	Price	Amount
Polished Plate Loss						
	Cutting Dept. Shrinkage - Form "A"	42652				
	Assembly Dept. Rejects - " "A"	18689				
A -	Glass broken in Stock - Pol. Plate	957	62298		.41851	26072.53
Pressing Dept. Loss						
B -	Pressing Shrinkage - Plant #1 - 1	36296				
C -	Pressing Shrinkage - Plant #1 - 2	37488				
D -	Pressing Shrinkage - Plant #1 - 3	6792				
E -	Pressing Shrinkage - Plant #2 - 1	1144				
F -	Pressing Shrinkage - Plant #2 - 2	550				
G -	Pressing Shrinkage - Block Size Duplate	508				
H -	Pressing Shrinkage - Block Size Duplate	477				
I -	Pressing Shrinkage - Saw Cutting Operation	527				
J -	Pressing Shrinkage - Small Autoclave	689				
K -	Loss in Pressed Glass Stock	2183				
	Inventory Adjustment	4098		90752	1.2695	115209.66
Edging Dept. Loss						
L -	Edging Shrinkage - Turn #1	1376				
M -	" " - " #2	4570				
N -	" " - " #3	3963		9909	1.88224	18651.17
	Loss in Stock - Unedged			3326	1.79400	5966.84
	Loss in Stock - Edged			1149	1.84419	2118.97
Edgework						
	Rough					16.26
	Smooth					2.54
	Polished					.86
Inventories						
O -	Pol. Plate Glass Stock - Thin	40497 Ft.				
P -	Assembled Glass - Duplate	2463 "				
Q -	Pressed " - "	886 "				
R -	Edged " - "	22043 "				
S -	Finished " - " Unedged	36347 "				
T -	" " - " Edged	21028 "				
	Rough Edgework	396805 In.				
	Smooth Edgework	386418 "				
	Polished Edgework	386418 "				
	Total		62298	105136		168038.83

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PRODUCTION LOSS ANALYSIS - GLASS

FEBRUARY 1929

		Pol. Plate Feet	Duplate Feet	Price	Amount
Polished Plate Loss					
Cutting Department Shrinkage (Form "A")	16657				
Loss in Stock - Returns from Assembly	16424				
A- Loss in Stock Breakage	317				
Assembly Shrinkage	8105				
Inventory Adjustment	4959	46462		.42505	19748.58
Pressing Department Loss					
B- Pressing Shrinkage #1 Turn #1 Plant	21826				
C- Pressing Shrinkage #2 Turn #1 Plant	24502				
D- Pressing Shrinkage #1 Turn #2 Plant	11719				
E- Pressing Shrinkage #2 Turn #2 Plant	16213				
F- Pressing Shrinkage #3 Turn #2 Plant	7989				
G- Pressing Shrinkage-Southwark Press	108				
Pressing Shrinkage	10013		92370	1.32920	122778.20
Edging Department Loss					
H- Edging Shrinkage #1 Turn #1 Plant	1144				
I- Edging Shrinkage #2 Turn #1 Plant	1541				
J- Edging Shrinkage #3 Turn #1 Plant	1027				
K- Edging Shrinkage #1 Turn #2 Plant	2938				
L- Edging Shrinkage #2 Turn #2 Plant	3317				
M- Edging Shrinkage #3 Turn #2 Plant	2577				
N- Edging Shrinkage - Glass broken in Packing Room	185				
Inventory adjustment	2806		15535	1.98438	30827.31
Loss in Stock - Duplate					
O- Duplate rejected after being passed to stock			641	1.90709	1222.45
Edgework					
Rough					156.45
Smooth					27.62
Polished					9.47
Inventories					
P- Polished Plate Stock	110806 Ft.				
Q- Assembled Duplate	2297 "				
R- Pressed Duplate	6081 "				
S- Edging Department Duplate	28834 "				
T- Finished Stock Duplate Unedged	41565 "				
U- Finished Stock Duplate Edged	27427 "				
Rough Edgework	409639 In.				
Smooth "	407993 "				
Polished "	407993 "				
	Total	46462	108546		174770.08

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PRODUCTION LOSS ANALYSIS - GLASS

MARCH 1929

		Pol. Plate Feet	Duplate Feet	Price	Amount
Polished Plate Loss:-					
A - Cutting Loss #1 Turn #1 Plant	4019				
B - Cutting Loss #2 Turn #1 Plant	9496				
C - Cutting Loss #3 Turn #1 Plant	2571				
D - Stock Loss #2 Plant	52				
Cutting Loss	15642	31780		.42556	13524.89
E - Assembly Shrinkage - Returns	2382				
F - Assembly Shrinkage - Returns	10831				
G - Assembly Shrinkage - Returns	10753				
H - Assembly Shrinkage - Returns	2164				
I - Assembly Shrinkage - Returns	3891				
Assembly Shrinkage - Operating	1104	31125		.42558	13246.15
Pressing Department Loss:-					
J - Pressing Shrinkage #1 Turn #1 Plant	8265				
K - Pressing Shrinkage #2 Turn #1 Plant	7610				
L - Pressing Shrinkage #3 Turn #1 Plant	3991				
M - Pressing Shrinkage #1 Turn #2 Plant	6586				
N - Pressing Shrinkage #2 Turn #2 Plant	6736				
O - Pressing Shrinkage #3 Turn #2 Plant	1127				
P - Pressing Shrinkage Represses	1211		35526	1.43330	50919.42
Edging Department Loss:-					
Q - Edging Shrinkage #1 Turn	2033				
R - Edging Shrinkage #2 Turn	14056				
S - Edging Shrinkage #3 Turn	2915				
T - Edging Shrinkage - Refinished	13		19018	1.71154	32550.16
Edgework:-					
Rough					180.68
Smooth					21.31
Polished					6.30
Inventories:-					
U - Polished Plate Stock	128271				
V - Assembled Duplicate	3700				
W - Pressed Duplate	3314				
X - Edging Department Duplate	28170				
Y - Finished Duplate Unedged	41732				
Z - Finished Duplate Edged	21328				
Rough Edge Work	397946 In.				
Smooth Edge Work	369068 In.				
Polished Edge Work	369007 In.				
Total		82305	84544		110447.91

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PRODUCTION LOSS ANALYSIS - GLASS

APRIL 1929

			Pol. Plate Feet	Duplate Feet	Price	Amount
Polished Plate Loss						
A	Cutting Loss per recap Sheet	9488)				
B	" " recutting	687)	10175			4209.18
C	Assembly Shrinkage - Loss in stock	294)				
D	Assembly Shrinkage - Rejects	9070)				
	" " Inv. adj.	8786)	18150		.41368	7508.26
Pressing Dept. Loss						
E	Pressing Shrinkage #1 Turn	1807				
F	" " #2 "	1418				
G	" " #3 "	860		4085	1.29360	5284.36
Edging Dept. Loss						
H	Edging Shrinkage			5510	1.61344	8890.06
Loss in Finished Stock						
I	Finished Stock Rejects			352	1.76428	621.03
Edgework						
	Rough					40.47
	Smooth					4.77
	Polished					1.57

Inventories			
J	Polished Plate Stock	102904	Ft.
K	Assembled Duplate	1464	"
L	Pressed "	161	"
M	Edging Dept. "	31831	"
N	Finished "	23546	"
O	" "	42176	"
	Rough Edgework	361382	In.
	Smooth "	329080	"
	Polished "	329080	"

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Total	28325	9917		26559.70

2901

PRODUCTION LOSS ANALYSIS - GLASS

MAY 1929

			Pol. Plate Feet	Duplate Feet	Price	Amount
Polished Plate Stock						
A	Cutting Loss - #1 Plant	5024				
A	" " #2 "	3492	8516		.42214	3594.90
B	Assembly Shrinkage-#1 Plant	2113				
B	" " #2 "	1427				
C	" " Recut	49				
	Inventory Adjustment	2272	5861		.42214	2474.14
Pressing Dept. Loss						
E	Pressing Shrinkage #1 Turn #1 Plant	817				
F	Pressing Shrinkage #2 Turn #1 Plant	196				
G	Pressing Shrinkage #2 Plant	1985		2999	1.29540	3884.91
Edging Dept. Loss						
H	Edging Shrinkage			3634	1.37315	4990.03
Loss in Finished Stock						
I	Finished Duplate Rejects			2362	1.49414	3526.18
Edgework						
	Rough					9.16
	Smooth					1.08
	Polished					.56
Inventories						
J	Polished Plate Glass	47282 Ft.				
K	" " Cutting Dept.	2360 "				
L	Assembled Duplate	1111 "				
M	Pressed	4240 "				
N	Edging Dept. Duplate	20468 "				
O	Finished Duplate Unedged	45609 "				
P	" " Edged	13039 "				
	Rough Edgework	250024 In.				
	Smooth "	209048 "				
	Polished "	209048 "				
		Total	14377	8995		18480.96

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PRODUCTION LOSS ANALYSIS - GLASS

JUNE 1929

	Pol. Plate Feet	Duplate Feet	Price	Amount
Polished Plate Glass Losses				
Assembly Dept. Shrinkage	1928		.41905	807.92
Cutting Loss	5831		.41905	2443.47
Pressing Department Loss		6956	1.25000	8695.00
Edging Department Loss		6706	1.29880	8709.73
Finished Stock Loss		1343	1.32728	1782.55
Edgework				
Rough Edgework				7.47
Smooth "				1.45
Polished "				.74

Inventories

Pol. Plate Glass Stock	29093	Ft.
Cutting Dept.	4010	"
Assembled Glass	1104	"
Pressing Dept.	1267	"
Edging	8837	"
Duplate Stock - Unedged	28073	"
" " Edged	26542	"
Rough Edgework	471656	In.
Smooth "	367774	"
Polished "	367774	"

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Total	7759	15005	22448.33

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PRODUCTION LOSS ANALYSIS - GLASS

JULY 1929

	Pol. Plate Feet	Duplate Feet	Price	Amount
Polished Plate Glass Losses				
Cutting Loss	15319		.38969	5969.85
Pressing Dept. Loss		2619	1.17182	3069.00
Edging Dept. Loss		3693	1.13345	4185.84
Duplate Loss in Stock		2000	1.21470	2429.48
Inventories				
Pol. Plate Glass Stock	40161 Ft.			
Cutting Dept.	31238 "			
Assembled Glass "	1530 "			
Pressing Dept.	13242 "			
Edging Dept.	9457 "			
Duplate Stock - Unedged	14621 "			
" " Edged	27089 "			
Rough Edgework	420274 In.			
Smooth "	265734 "			
Polished "	265734 "			
Total	15319	8312		19654.17

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PRODUCTION LOSS ANALYSIS - GLASS

AUGUST 1929

			Pol. Plate Feet	Duplate Feet	Price	Amount
Polished Plate Loss						
15-A	Assembly - Pol. Plate rejected before assembly - Unit #1	2907				
15-B	Pol. Plate rejected after assembly - Unit #1	4724				
16-C	Pol. Plate rejected before Assembly - Unit #2	1977				
16-D	Pol. Plate Rejected after assembly - Unit #2	3643				
	Total Assembly Shrinkage		13251		.38457	5099.12
13-E	Polished Plate - Cutting Loss		14053		.38457	5404.36
Pressing Dept. Loss						
20-F	Pressing Shrinkage - Unit #1 Plant #2	4587				
21-G	Pressing Shrinkage - Unit #2 Plant #2	4242				
22-H	Pressing Shrinkage - Plant #1	26				
22-I	Pressing Shrinkage Local Orders Plant #1	272				
23-J	Pressing Shrinkage Fluid LamO inating Duplate	429		9559	1.11237	10633.14
Edging Dept. Loss						
28-K	Edging Shrinkage			7205	1.21673	8766.58
Finished Stock						
	Loss in Stock			17177	1.28002	21986.90
	Polished Edgework					314.98

Inventories

L	Polished Plate Stock	68676	
M	" " Cut Glass Stock	10279	
N	Assembled Duplate	2341	
O	Pressed "	17823	
P	Edged Duplate Edging Dept.	12242	
Q	Finished Stock Duplate Unedged	13566	
Q	" " " Edged	52557	
Rough Edge Work		812782	In.
Smooth Edge Work		747082	In.
Polished Edge Work		747082	In.

	Total	[illegible]7304	33941	52205.08

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PRODUCTION LOSS ANALYSIS - GLASS

SEPTEMBER 1929

			Pol. Plate Feet	Duplate Feet	Price	Amount
Polished Plate Loss						
52-A	Pol. Plate Cutting Loss #1 Turn	7965.95 Ft.				
52-B	Pol. Plate Cutting Loss #2 Turn	4196.70	12163		.39988	
53-C	Pol. Plate Loss in Stock		482		.39944	5056.27
Assembly Department Loss						
60-D	Assembly Shrinkage-#1 Turn	1429.09 Ft.				
61-E	" " #2 "	1433.27		1431	.55715	1594.56
Pressing Department Loss						
60-F	Pressing Shrinkage-#1 Turn	2339.18 Ft.				
61-G	" " #2 "	2254.14				
64-H	" " Local orders	234.38		4827	1.17305	5662.31
Carbitol Department Loss						
74-I	Pressing Shrinkage			1131	1.31033	1481.98
Edging Department Loss						
67-J	Edging Shrinkage			1740	1.31033	2279.97
Loss in Finished Stock						
73-K	Rejected before shipping	310.14 Ft.				
75-L	" " "	95.38		405	1.36167	551.48
Inventories						
M	Polished Plate Stock	45719 Ft.				
N	Cut Glass Stock	10614 "				
O	Pyralin Stock	59647 Sheets				
P	Assembled Duplate	3428 Ft.				
Q	Pressed Duplate	4012 "				
R	Warehouse Stock Duplate	8120 "				
S	Edged Duplate	52328 "				
	Total		12645	9534		16626.17

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PRODUCTION LOSS ANALYSIS - GLASS

OCTOBER 1929

			Pol. Plate Feet	Duplate Feet	Price	Amount
Polished Plate Loss						
77-A	Loss in Stock		450		.36763	165.43
Cutting Department Loss						
76-B	Cutting Loss	15519				
81-C	Cutting Loss Specialty Dept.	18	15537		.36794	5716.68
Assembly Department Loss						
82-D	Assembly Shrinkage	1294				
83-E	Assembly Shrinkage	1434	2728		.39072	1065.88
Pressing Department Loss						
82-F	Pressing Shrinkage #1 Turn	1958.41				
82-G	Pressing Shrinkage #2 Turn	1904.69				
83-H	Pressing Shrinkage Fluid #1 Plant	1228.39				
83-I	Pressing Shrinkage Fluid #2 Plant	1247.99				
86-J	Pressing Shrinkage Local Orders	86.53		6427	1.07060	6880.75
Carbitol Department Loss						
90-K	Operating Shrinkage			520	1.17599	611.51
Edging Department Loss						
88-L	Edging Shrinkage	923.45				
89-M	Edging Shrinkage	215.99				
94-N	Carbitol Cutting in Edging Dept.	180.41				
	Adjustment to Physical Inventory	2492.15		3812	1.17753	4488.75
Finished Duplate Loss						
89-O	Rejected before shipping	42.60				
	" " "	332.74				
	Adjustment to inventory	200.66		576	1.29339	744.99
Inventories						
P	Pol. Plate Stock	52997 Ft.				
Q	Cut Glass Stock	8672 "				
R	Assembled Duplate Stock	3820 "				
S	Pressed Duplate Stock	16676 "				
T	Warehouse Duplate Stock	4251 "				
U	Finished Duplate Stock Edged	66818 "				
V	Pyralin Stock	51739 Sheets				
		Total	18715	11335		19673.99

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PRODUCTION LOSS ANALYSIS - GLASS

NOVEMBER 1929

		Pol. Plate Feet	Duplate Feet	Price	Amount
Polished Plate Loss					
96-A Loss in Stock		310		.36360	112.72
Polished Plate Cutting Dept. Loss					
96-B Cutting Loss	8677.66				
106-C " " Specialty Dept.	65.76	8744		.36316	3175.47
Assembly Dept. Loss					
97-D Assembly Shrinkage	1072.33				
97-E " "	441.82	1514		.39280	594.70
Pressing Dept. Loss					
97-F Pressing Shrinkage	2424.99				
98-G " "	1492.25		3917	1.11522	4368.32
Carbitol Dept. Loss					
101-H Operating Shrinkage	74.23				
102-I " "	185.34		259	1.27948	331.39
Edging Dept. Loss					
103-J Edging Shrinkage			1049	1.27948	1342.17
Loss in Finished Duplate			3450	1.35740	4683.03
Inventories					
K Pol. Plate Stock	24170				
L Cut Glass Stock	16561				
M Pyralin Stock	59920				
N Assembled Duplate Stock	1162				
O Pressed Duplate Stock	6996				
P Warehouse Duplate Stock	5575				
Q Edged Duplate Stock(Finished)	40653				
Total		10568	8675		14607.80

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PRODUCTION LOSS ANALYSIS - GLASS

DECEMBER 1929

		Pol. Plate Feet	Duplate Feet	Price	Amount
Polished Plate Loss					
117-A P.P. Loss in Stock		357		.37832)	2675.10
Polished Plate Cutting Dept. Loss					
117-B Cutting Pol. Plate		6714		.37832)	
Assembly Dept. Loss					
118-C Assembly Shrinkage			1270	1.12239	1425.44
Pressing Dept. Loss					
118-D Pressing Shrinkage	2685				
118-E " " (Carbitol)	8		2693	1.22626	3302.32
Pressed Glass Stock					
120-F Loss in Stock			127	1.36461	173.31
Edging Dept. Loss					
121-G Edging Shrinkage			660	1.36645	901.86
Finished Glass Stock					
Loss in Stock	1585				
Loss in Stock	7857		9442	1.46536	13835.93
Inventories					
Pol. Plate Stock	63739 Ft.				
Cut Glass Stock	14315 "				
Pyralin Stock	42426 Sheets				
Cut Pyralin Stock	676 "				
Pressed Glass Stock	27445 Ft.				
Finished Glass Stock	15831 "				
Total		7071	14192		22313.96

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PRODUCTION LOSS ANALYSIS - GLASS

JANUARY 1930

		Pol. Plate Feet	Duplate Feet	Price	Amount
Pol. Plate Stock					
2-A Loss in Stock		1034		.34270	354.35
Pol. Plate Cutting Dept. Loss					
2-B Loss Cutting		27970		.34343	9605.74
Assembly Dept. Loss					
2-C Assembly Shrinkage-Belt Rejects	602.70Ft.				
2-D " " -Handling "	1385.01				
Feetage Pol. Plate Loss	1987.71				
" Duplate Loss			994	1.03497	1028.76
Pressing Dept. Loss					
2-E Pressing Shrinkage	3942.84 Ft.				
2-F " " Returns from ED	1423.06				
6-G " " Local Orders	501.68		5867	1.09773	6440.38
Pressed Glass Stock Loss					
2-H Loss in Stock			202	1.242392	250.96
Edging Dept. Loss					
3-I Edging Shrinkage	838.32 Ft.				
3-J " " Stock Glass	190.79				
3-K " " Oil Cutting	1006.27				
" " Miscellaneous	127.62		2163	1.20034	2596.33
Finished Duplate Stock					
3-L Loss in Stock			286	1.31267	375.43

Inventories

Polished Plate Glass	70860	Ft.
Cut Glass Stock	9997	"
Pyralin	85508	Sh.
Cut Pyralin	1670	"
Pressed Glass Stock	29200	Ft.
Finished Stock	26018	"

Total	29004	9512	20651.95

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PRODUCTION LOSS ANALYSIS - GLASS

FEBRUARY 1930

		Pol. Plate Feet	Duplate Feet	Price	Amount
Pol. Plate Glass Stock					
9-A	Loss in Stock	350		.34726	121.54
9-B	Cutting Loss	15827		.34763	5501.94
Assembly Dept. Loss					
9-C	Assembly-Split Rejects	406.56			
9-D	" Handling Rejects	1069.64			
	Polished Flt. Ftg.	1476.20			
	Duplate Footage		738	1.00784	743.79
Pressing Dept. Loss					
9-E	Pressing Shrinkage	1553.65 Ft.			
9-F	Pressing Rejects from ED	790.48			
9-G	" " " "	1653.54			
10-H	" " Stock Glass	286.47			
13-I	" Shrinkage-Local Orders	23.16			
	" " -Miscellaneous	21.70	4329	1.07222	4641.64
Pressed Glass Stock					
9-J	Loss in Stock		172	1.20054	206.49
Edging Dept. Loss					
10-K	Edging Shrinkage	424.05 Ft.			
10-L	" " Stock Duplate	34.54			
10-M	" " Oil Cutting	984.12			
	Inventory Adjustment	664.29	2107	1.20174	2532.07
Finished Duplate Stock					
10-N	Loss in Stock		4	1.32269	5.29

Inventories

Pol. Plate Stock	29476	Ft.
Cut Glass Stock	1287	"
Pyrali Stock	108227	Sh.
Cut Pyralin Stock	463	"
Pressed Glass Stock	24594	Ft.
Finished Glass Stock	30167	"

1335	Total	16177	7350	13752.76

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PRODUCTION LOSS ANALYSIS - GLASS

MARCH 1930

			Pol. Plate Feet	Duplate Feet	Price	Amount
Pol. Plate Glass Loss:-						
21-A	Loss in Stock		175		.34882	61.04
21-B	Cutting Loss		15741		.34899	5493.45
Assembly & Pressing Dept. Loss:-						
21-C	Assembly Shrinkage	451.15 Ft.				
21-D	" " Handling Rej.	1115.70				
	Total Pol. Plate Feetage Loss	1566.85				
	Total Duplate Assembly Loss	783.42				
21-E	Pressing Shrinkage	3846.76)				
21-F	Returns from Edging Dept.	1211.58)				
25-G	Pressing Shrinkage - Locals	164.24)		6006	1.01206	6078.43
Pressed Glass Stock Loss:-						
21-H	Loss in Stock			68	1.01206	68.82
Edging Department Loss:-						
22-I	Edging Shrinkage	977.80 Ft.				
22-J	" " Stock Duplate	127.84				
22-K	" " Oil Cutting	1137.39		2243	1.19211	2673.90
Finished Duplate Stock:-						
22-L	Loss in Stock			57	1.32099	75.30
Inventories:-						
	Pol. Plate Stock	44799 Ft.				
	Cut Glass Stock	2433 "				
	Pyralin Stock	77684 Sh.				
	Cut Pyralin Stock	975 "				
	Pressed Glass Stock	26420 Ft.				
	Finished Duplate Stock	34278 "				
	Total		15916	8374		14450.94

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PRODUCTION LOSS ANALYSIS - GLASS

APRIL 1930

		Pol. Plate Feet	Duplate Feet	Price	Amount
Pol. Plate Glass Loss:-					
34-A Loss in Stock		34		.35065	11.92
34-B Cutting Loss		10293		.35070	3609.75
Assembly & Pressing Dept. Loss:-					
34-C Assembly Shrinkage	611.49 Ft.				
34-D " " (Handling)	476.68 "				
34-E Pressing "	2049.18 "				
34-F " " (Edging Returns)	552.16 "				
Inventory Adjustment	436.51 "		3253	1.02833	3345.16
Pressed Glass Stock Loss:-					
34-G Loss in Stock			104	1.18466	123.23
Edging Dept. Loss:-					
35-H Edging Shrinkage (StockDuplate)	112.91 Ft.				
35-I " "	499.44 "				
35-J " "	37.99 "				
35-K " " Oil Cutting	557.40 "				
Miscellaneous	330.26 "		1538	1.18585	1823.84
Finished Duplate Loss:-					
35-L Loss in Stock			48	1.31373	63.06
Inventories:-					
M Polished Plate Stock	19896 Ft.				
N " " Cut Stock	7180 "				
O Assembled & Pressed Duplate	34104 "				
P Finished Duplate	22019 "				
Q Pyralin	112277 Sheets				
Total		10587	4943		8976.96

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PRODUCTION LOSS ANALYSIS - GLASS

MAY 1930

		Pol. Plate Feet	Duplate Feet	Price	Amount
Pol. Plate Glass Loss:-					
48-A Loss in Stock		35		.3530	12.35
48-B Cutting Shrinkage		6074		.3530	2144.12
Assembly & Pressing Loss:-					
48-C Assembly Shrinkage	152.11 Ft.				
48-D Pressing "	1432.77 "				
48-E " " (Edging Rejects)	1126.84 "				
52-F " " (Duplate Locals)	23.03 "				
52-G " " (" Rent)	336.25 "		3071	1.00059	3072.81
Pressed Glass Stock Loss:-					
48-H Loss in Stock			566	1.14046	645.50
Edging Dept. Loss:-					
49-I Edging Shrinkage	733.57 Ft.				
49-J " " (Stock Duplate)	41.14 "				
Inventory Adjustment	76.29 "		851	1.12388	956.42
Finished Duplate Loss:-					
49-K Loss in Stock			683	1.24866	852.97
Inventories:-					
L Polished Plate Glass	18562 Ft.				
M " " " (Cut Stock)	595 "				
N Assembled & Pressed Duplate	31662 "				
O Finished Stock "	9277 "				
P Pyralin	82227 Sheets				
Total		6109	5171		7684.17

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[fol. 1339] SUPREME COURT OF THE UNITED STATES, OCTOBER TERM, 1935

No. 767

ORDER ALLOWING CERTIORARI—Filed March 30, 1936

The petition herein for a writ of certiorari to the United States Circuit Court of Appeals for the Third Circuit is granted. And it is further ordered that the duly certified copy of the transcript of the proceedings below which accompanied the petition shall be treated as though filed in response to such writ.

[fol. 1340] SUPREME COURT OF THE UNITED STATES, OCTOBER TERM, 1935

No. 768

ORDER ALLOWING CERTIORARI—Filed March 30, 1936

The petition herein for a writ of certiorari to the United States Circuit Court of Appeals for the Third Circuit is granted. And it is further ordered that the duly certified copy of the transcript of the proceedings below which accompanied the petition shall be treated as though filed in response to such writ.

Endorsed on cover: File No. 40,321, 40,322. U. S. Circuit Court of Appeals, Third Circuit. Term No. 767. Duplate Corporation and Pittsburgh Plate Glass Company, petitioners, vs. Triplex Safety Glass Company of North America. Term No. 768. Duplate Corporation and Pittsburgh Plate Glass Company, petitioners, vs. Triplex Safety Glass Company of North America. Petition for writs of certiorari and exhibit thereto. Filed February 21, 1936. Term No. 767, O. T., 1935, 768, O. T., 1935.